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THE GERMAN
MERCHANT MARINE



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PART I

SUMMARY

The proposed procedure for administering and operating the German merchant marine is based upon the assumptions that (1) there will be a shortage of shipping, the total tonnage left in German hands not being in excess of 6,000,000 GRT; (2) the seized tonnage will have to be restored; and (3) there will be a relatively greater shortage of small vessels. If these assumptions should prove incorrect, appropriate modifications can be made. It is generally agreed that some Allied agency should be given power to prevent a lay-up of the German merchant marine, such as occurred after the last war.

It is naturally impossible to estimate in advance exactly the overseas tonnage requirements for Germany, but it is presumed that these needs will be very small indeed. Consequently it is probable that the greater part of Germany's ocean-going shipping can be diverted to the United Nations pool. To facilitate such transfers, and only in the absence of personnel specifically charged with such duties, it would be well if Military Government, immediately on taking control of a port, should at least make a survey of such vessels as it finds there for report to appropriate authorities.

It is also suggested that Military Government be given close liaison with any agency in control of all German coastal shipping.

The right to control the operation of German merchant tonnage, without regard to the question of ownership can be derived either from the terms of the instrument of surrender or from customary international law. If Military Government is obliged for any reason to take action in regard to German shipping, its position should be that German shipping interests are to be under Military Government custodianship. The whole problem of ownership of German shipping presents complicated problems whose solution, however, will not fall to Military Government.

Administration of the German merchant marine will present the same problems as the administration of other German governmental agencies. Specifically, however, there would be no need for specially created committees and organizations which have been established for war purposes. All matters pertaining to ocean shipping should be administered in a central German administration, the personnel of which should be carefully checked to eliminate active Nazis.

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Generally it will be difficult to operate the German merchant marine without German personnel. The use of German personnel will give rise to many problems, particularly in respect to security. Nevertheless, it is recommended that wherever possible existing personnel be retained, subject, of course, to thorough investigation and close supervision. Men prominent in shipping who were forced out by the Nazis could be very useful in replacing active members of the Nazi Party. But generally speaking, there will probably not be a shortage of personnel at either the administrative or the operating level. The present shortage is the result of the war, and with the return of men from the armed services and from war industries there will almost certainly be a surplus.

It is unlikely that German shipyards will be able to engage in large-scale construction of ocean-going vessels in the period immediately following the war. Military Government will be concerned with the maintenance of repair facilities, since these will be required not only for German vessels but for Allied vessels using German ports. Therefore, immediately following occupation, a survey of all German yards should be made with a view to determining their capacity and condition.

I. GENERAL CONSIDERATIONS

The suggestions and recommendations for the administration and operation of the German merchant marine made below are based upon the following assumptions:

A. That until the termination of the war with Japan, unfulfilled demands for shipping will exist; and that for this reason it is of importance that all German tonnage be put to immediate use without waiting for decision as to its final disposition.

B. That the total tonnage left in German hands at the conclusion of hostilities will not be in excess of 6,000,000 GRT.¹

C. That since the Germans have seized at least 3,300,000 GRT and that since ton-for-ton restoration of this is likely to be required as soon as possible, the total German merchant marine is not likely to exceed 2,700,000 GRT.

D. That there will be a relative shortage of small vessels which are important for coastal trade.

If these assumptions should prove incorrect, and particularly if the size of the German merchant marine should be overestimated, appropriate modifications can be made.

In connection with assumption A, it should be pointed out that following the last war the German merchant marine lay idle from

¹ For the size, functions, and administration of the German merchant marine before and during the war, and for its possible size after the war, see the Appendix to this study (R&A No. 1783.2).

November 1918 to April 1919. Since the ultimate disposition of the German merchant marine involves political considerations which will not be settled by those responsible for the operation of the German merchant marine, and since the ships of this merchant marine can be operated without waiting for this final disposition to be made (see III), it would be very desirable for some Allied agency to be given power to prevent such a lay-up from occurring again this time.

In view of the fact that merchant shipping under the control of the United Nations is already subject to controls set up on a regional basis, it is probable that German tonnage not needed for military purposes will be immediately brought within the orbit of those controls, and that Military Government will have little or no obligations in connection with its administration. Even so, it may be important that Military Government be advised of any proposed line of action so that it may assist, rather than impede, control of German tonnage.

II. POST-WAR SHIPPING REQUIREMENTS

A. Ocean Shipping.

1. Utilization of German tonnage for United Nations needs.—It is not possible to estimate in advance exactly the overseas tonnage requirements for Germany, but if these needs are predicated on supplying only minimum foodstuff requirements for Germany, they will be very small indeed.

Consequently it is probable that the greater part of Germany's ocean-going shipping can be diverted to the United Nations pool, where it can be used for supplying Europe as a whole or even for operations in the Far East.

To facilitate such transfers, however, it would be well if, immediately upon taking over control of a port, in the absence of personnel specifically charged with such duties, Military Government at least make a survey of such vessels as it finds there and report to the appropriate authorities their number, type, tonnage, and state of repair. In such circumstances, Military Government should also report any information regarding officers and crews locally available, and take possession of the vessels pending their transfer to the pool.

2. Utilization of German tonnage for German needs.—If, however, it should transpire that some tonnage is still required for Germany, it would seem highly advisable to use German tonnage whenever possible. It may be necessary to use German personnel to man German ships (see IV) and obviously their cooperation would be better, and hence the problem of their control much simplified, if they were aboard vessels operating into and out of Germany.

B. Coastal Shipping.

Even in normal times, coastal shipping in Germany fills a useful role in the shipment of bulk commodities such as grain, coal, petroleum, etc. It is linked closely with the extensive German inland waterway system.

If other transport—and particularly rail transport—should be disrupted following the war, coastal shipping could perform an important function not only in helping to meet Germany's own minimum transportation needs, but in supplying those of the occupying forces. Coastal traffic is too slow to handle priority goods, but it could be used, as it was before the war, for bulk commodities.

For this reason, it is suggested that the closest cooperation is advisable between the agencies charged with the responsibility for the operation of the other German transportation systems and the agency operating German coastal shipping and that, if Military Government is not authorized to take any part in the control of coastal shipping, it be given close liaison with the supervising agency.

The supervising agency should see to it that all such shipping is administered in the interests of the transport needs of Germany and of the occupying forces. There will be a general shortage of vessels suitable for coastal trade and for that reason—particularly if any of it remains in German ownership—there will be a constant and a natural tendency to operate solely for considerations of short-range or long-range profit.

III. ADMINISTRATION AND CONTROL

A. Basis of the Right to Control.

Without regard to the question of title or ownership, the United Nations would have the right to control the operation of the German merchant tonnage, derived either from the terms of the instrument of surrender or from customary international law.²

For the period during which the United Nations operate a combined control of most of the world's merchant tonnage and no voyage is undertaken without the approval of the United Nations shipping authorities, no great problem of control, if any, can arise because of the power position as to German merchant shipping, however derived.

B. Ownership of German Shipping.

As stated above, the ultimate decision as to the ownership and disposition of German merchant shipping is political in nature and

² See the award of 13 October 1922 of the Permanent Court of Arbitration at The Hague, United States-Norway (1923 17 AM. J. I. L. 385).

will probably be implemented by agencies other than Military Government. However, it may be necessary for Military Government, in the absence of the personnel of those other agencies, to take action as to German shipping. In such circumstances only, Military Government will be obliged to act. It should then take the position that German shipping interests are to be brought under Military Government custodianship. Such a position would enable Military Government to take possession of the shipping interests in question and eventually to deliver them to the agency charged with their administration.

In case of vessels found under German flag and registry, but alleged to have been transferred to such flag and registry by methods which the United Nations will not wish to honor, it is suggested that Military Government may find it expedient to rely upon flag and registry to establish its right to control such tonnage, and to leave the questions as to previous ownership for disposition by the agency primarily charged with the administration of German merchant tonnage.

C. Administration.

In general, administration of the German merchant marine will present the same problems as the administration of other German governmental agencies, and it is suggested, therefore, that reference be made to the Civil Affairs Guide on German Central Administration and Civil Service (R&A No. 1655.12).

Specifically, however, there would be no need for, nor advantage in, maintaining specially created committees and organizations such as the Main Committee for Shipbuilding (the Speer organization) and the Reich Commissariat for Ocean Shipping (the Kaufmann organization). These organizations were created for war purposes and their personnel is thoroughly indoctrinated with the Nazi point of view.

If there is a central German administration, it would be well to return administration of all matters pertaining to ocean shipping to the Ministry of Transport. It would also be well to dissolve the Reich Transport Group for Ocean Shipping with its subordinate trade groups. Its members should have the right to organize themselves freely. The whole personnel should be carefully checked in accordance with the principles outlined in the Civil Affairs Guide on German Central Administration and Civil Services, and members likely to represent the Nazi point of view should be removed. If there is a German administration, some sort of an Allied agency should be set up with powers to make policy and to supervise. If there is no central German administration, an Allied agency having

the functions and powers of the Ministry of Transport should be set up.

At a minimum, Allied supervisory personnel should be placed in Department "S" (Ocean Transport) in the Ministry of Transport. A special effort should be made to include among this personnel those with shipping or shipbuilding experience.

At the beginning, it might also be advisable to assign personnel to local offices to ascertain the extent of war damage, to determine necessary repairs, and to supervise routine work. When and if necessary, Allied security police should be placed in sections of the port, yards, etc., where sabotage could disrupt traffic.

IV. THE USE OF GERMAN PERSONNEL

The fact must be faced that the difficulties of operating the German merchant marine will be greatly increased if German personnel is not used.

In 1935 a German merchant marine of 3,700,000 GRT was manned by 7,477 officers and 29,722 men, exclusive of shore personnel. On this basis, a merchant marine of 2,700,000 GRT would need approximately 5,400 officers and 21,500 men. Such a merchant marine would consist of at least 1,000 and possibly 2,000 ships. Hence, even the problem of assigning a small supervisory group to each vessel would call for considerable manpower.

Furthermore, German crews would be much more familiar with the operation of German vessels. When German vessels were turned over following the last war, for example, considerable time was spent merely in replacing signs and directions in German with English ones.

However, the use of German personnel will give rise to many problems, particularly in respect to security. Every member of the German government had to be a member of the Nazi Party. This would apply even to an old-line agency like the Ministry of Transport, many of whose employees were thoroughly imbued with the spirit of National Socialism. It would also apply to the officers and crews of the ships. On the other hand, it is also true that some officers and sailors and some members of these organizations were not Nazis by conviction, but were merely men of technical proficiency who joined the Party so as to retain their jobs.

The efficient operation of the German merchant marine would be greatly impaired if full use were not made of the services of men of the latter type.

For that reason it is recommended that wherever possible existing personnel be retained, subject, of course, to thorough investigation and close supervision. This policy should be adopted particularly in

the case of employees in the lower levels and of the operating personnel of ships.

However, no matter what the circumstances and no matter how close the supervision, no individual should be employed who has been notorious as a formulator or executor of Nazi policies, nor should any such individual be retained no matter how great his familiarity with shipping nor how great his technical skill.

In this connection, it is also suggested that Military Government may find in German shipping circles men prominent in shipping who were forced by the Nazis to give up their positions and who were replaced by loyal members of the Nazi Party. If such men could be found, they might be very useful.

Last of all it should be pointed out that there will probably not be a shortage of personnel either on the administrative or the operating level. The present shortage is the result of the war and with the return of men from the armed services and from war industries there will almost certainly be a surplus, particularly in view of the reduced size of the merchant marine.

V. SHIPBUILDING AND REPAIR

It is unlikely that German shipyards will be able to engage in large-scale construction of ocean-going vessels in the period immediately after the war. Many yards have been converted to build U-boats, etc., while others have been damaged or destroyed. However, some yards still equipped to build merchant vessels will be found to have partially completed ships on the ways. The problem of whether these vessels should be completed is probably beyond the scope of Military Government, but Military Government should be prepared to assume control of these vessels if directed.

Military Government will, however, be concerned in the maintenance of repair facilities, since these will be required not only for German vessels but for Allied vessels using German ports.

It is suggested that immediately following occupation a survey of all German yards be made with a view to determining their capacity and condition. At least enough yards should be restored to operation to take care of all repair requirements of ships using German ports. If a general shipping shortage should develop, it might also be desirable to restore to service German vessels which have been laid up. Considerable tonnage would be involved since most German motor vessels and almost all large passenger liners have been laid up for a long time. Priorities for this kind of work should be established by the Allied authorities.

PART II

SUMMARY

A. The German Merchant Marine Before the War.

Sea-borne commerce played a very important part in Germany's economic life, particularly in the realm of foreign trade. For although total traffic into and out of German ports was relatively small compared to total traffic carried by her other transportation systems, over 32 percent of her foreign trade came into Germany by sea. If traffic brought in via non-German ports is included, more than 50 percent of Germany's foreign trade depended on ocean shipping.

To take care of this important business—and also for reasons of prestige—Germany rapidly rebuilt her merchant marine following its confiscation after the last war. By 1939 it was the fifth largest merchant marine in the world and consisted of 2,466 ships totalling 4,492,708 GRT. The ships were relatively new. Almost 20 percent were less than 5 years old; only 19.3 percent were over 20 years old. With an estimated annual capacity of 600,000 GRT, German shipbuilding was able to maintain and even expand such a merchant marine.

Before the war Germany had no difficulties in obtaining crews for her merchant marine. After 1935 the training and standards were standardized and closely supervised by the Nazi Party.

The Reich Ministry of Transport (*Reichsverkehrsministerium*) was the governmental agency responsible for control of the merchant marine. Closely related to the Ministry and cooperating with it in matters of commercial policy was the National Transport Group for Ocean Shipping (*Reichsverkehrsgruppe Seeschifffahrt*). This group was divided into nine trade groups, one of which was the Association of Shipowners (*Fachgruppe Reederei*). This Association was the channel used by the government in all dealings with shipowners.

Though the word "subsidy" was almost always avoided, the German government aided the merchant marine to an estimated annual amount of \$20,000,000 to \$25,000,000. This aid was extended in the form of construction bounties, interest contributions, scrapping loans, operating loans, operating subsidies, subventions to compensate for exchange losses, etc.

The German merchant marine was largely privately owned. Before 1935 Hapag-Lloyd (North German Lloyd and Hamburg-America Line) operated as much as 70 percent of German shipping. During 1935 the Reich decreed a reorganization of German shipping

which gave the individual companies a greater opportunity for independent action. At this time it bought considerable stock in the two big lines, but they still remained, at least, theoretically, private companies.

B. The Merchant Marine During the War.

With the war, the function of the German merchant marine changed considerably. All long-run foreign traffic was abandoned, except for the few ships which could run the blockade. On the other hand, coastal and short-run foreign traffic took on increased importance. The main war-time functions of the merchant marine were: (a) to supply certain critical German war needs; (b) to carry military supplies to German armies; (c) to carry on coastal trade, thus supplementing other heavily burdened transportation systems.

It is estimated that the German merchant marine now owns or controls at least 6,000,000 GRT of merchant shipping. However, mainly due to shortages in fuel, manpower, material, etc., considerable of this tonnage is laid up.

Little information is available regarding merchant ship construction before early 1941 but there was apparently little activity. A revival in German merchant shipbuilding began toward the second half of 1942. In the spring of 1943 the so-called "Nansa" program was initiated. It is a 3-year plan for the rapid construction of about 195 cargo ships. Orders were placed with German, Dutch, Danish, and Belgian yards. It was estimated that during the first 6 months of 1944 about 30,000 GRT would be commissioned in German yards alone. It is unlikely, however, that new construction was able to replace losses.

During the first 2 years of the war, the administration and organization of German shipping were relatively unchanged. In July 1942, however, a Reich Commissariat for Ocean Shipping (*Reichskommissariat für die Seeschifffahrt*) was set up. Karl Kaufman, appointed commissioner, was given virtually complete control over shipping. His organization has power not only in Germany, but in Norway and the Mediterranean. During May 1943 the responsibility for shipbuilding and repairs was vested in the Main Committee for Shipbuilding (*Hauptausschuss Schiffbau*) under the jurisdiction of the Reich Ministry of Armament and War Production. The net effect was a general improvement in Germany's shipping position.

C. The German Merchant Marine at the End of the War.

It can be reasonably assumed that the total tonnage in German hands when hostilities cease will not exceed the approximately 6,000,000 GRT they now hold. If ton-for-ton restoration should be re-

quired, the German merchant marine will have a maximum 2,700,000 GRT. This merchant marine will be unbalanced in its make-up, with a great shortage of smaller ships.

A. The German Merchant Marine Before the War.

1. Function of the German Merchant Marine.

a. Importance of Shipping to German Economic Life.—Seaborne commerce was of great importance to Germany before the war and, indeed, was relied on to bring into the country numerous important commodities which are essential to her peacetime standards of living. This was true despite the fact that shipping played a less important part in solving Germany's total transportation problems than it did in a peninsula like Italy or an island like Great Britain.

Figures for a series of normal peacetime years bear this out. Immediately preceding the war, for example, the total seaborne cargo carried into and out of German ports was less than half of that carried on her inland waterways and less than one-eighth that carried on her railroads.

But, averaging the figures for the years 1929 to 1936, 32.4 percent of her total foreign trade and approximately 43 percent of her imports were carried into or out of Germany on ocean-going vessels. The exact details are given in table 1.

Table 1. Average yearly movement of Germany's foreign trade from 1929 to 1936

[In millions of metric tons]

	Exports	Imports	Total	Percent
By railroad.....	19. 34	12. 60	31. 94	27. 9
By waterway.....	26. 84	18. 50	45. 34	39. 7
By ocean vessel.....	13. 42	23. 52	36. 95	32. 4
Total.....	59. 60	54. 62	114. 23	100. 0

In addition to this, many commodities reached Germany from overseas via non-German ports. In 1929, 1935, and 1937 (the only recent years for which figures are available) the average German imports and exports going through Dutch ports alone were 21,947,300 metric tons.

Thus approximately one-half of German foreign trade relied on shipping for some part of its voyage to or from Germany.

Moreover, the imports carried into Germany by sea were extremely important. Iron and manganese (4,475,957 metric tons),³ wool, cotton, etc. (936,015), grains (877,751), fertilizers (592,538), and coffee

³ These figures are for 1930.

(231,713) either could not have been obtained at all or only in insufficient quantities except from overseas.

Germany's coastal traffic was of secondary importance, but even in normal times it supplemented other modes of transport.

b. National Sea Trade Carried on National Vessels.—As Germany began to rebuild her merchant marine following the last war, an increasing proportion of the sea-borne commerce into and out of German ports was carried aboard vessels flying the German flag. Cargo tonnage figures are not available, but a fairly accurate picture can be obtained by examining the net tonnage figures for vessels with cargo entering or clearing German ports, particularly if these figures are compared with those for other nations.

Net tonnage figures for entrances and clearances of vessels with cargo show that the following percentages of German sea trade were carried on national vessels:

Year :	Approximate percentage
1921.....	39
1925.....	48
1930.....	56
1936.....	65

It is estimated that in 1939 approximately 70 percent of German sea trade was carried on vessels flying the German flag.

For purposes of comparison it should be noted that in 1936 approximately 65 percent of Japanese, 58 percent of British, 58 percent of Norwegian, 57 percent of Italian, 34 percent of American, 28 percent of Dutch, and 26 percent of French sea trade were carried in national vessels.

In annex A, a chart shows the percentage of national trade carried in national vessels for all these countries from 1921–1937.

c. Distribution of German Shipping.

(1) *Foreign trade.*—Advertisements for berth sailings in 1939 account for only 1,714,000 tons of Germany's more than 4,000,000 shipping tons, but this tonnage was distributed as follows:

Service	Tonnage	Percent
Germany to the Western Hemisphere.....	762, 000	44. 3
Germany to the Near and Far East.....	668, 000	39. 0
Germany to Africa.....	116, 000	7. 0
Germany to the Mediterranean.....	68, 000	4. 0
Foreign to foreign (i. e., between non-German ports)....	100, 000	5. 7
	1, 714, 000	100. 0

Not included in the tonnage analyzed are seasonal sailings with grain ships, colliers, tankers, whalers, tramp steamers, and cruise ships.

No information is available regarding the distribution of vessels of this type.

Annex B gives the principal German steamship services before the war with the name of the line, the destination, the number of steamers, the total GRT, and the type of service.

It should be pointed out that while most German services were operated for reasons of profit and competed successfully with other lines in the area, a few were operated at least in part for political reasons. This included lines serving places which had formerly been German colonies such as East Africa and certain of the islands in the South Pacific.

(a) *Trade with the Western Hemisphere.*—Lines running to the United States provided mainly fast passenger services to and from New York; combination passenger and freight services to United States North Atlantic ports, thence to Gulf ports for loading bulk commodities homebound; and fast refrigerator services principally carrying fresh fruits and vegetables from United States Pacific ports to Germany. Some of these services included stops at Canadian ports. There were important passenger services to Cuba, Mexico, and the east coast of South America. The nitrate trade with Chile was carried on by a regular line of freighters.

In 1936, exports to and from the Western Hemisphere were 8,069,828 metric tons,⁴ or 47 percent of Germany's total long-haul trade. Within the area, the regional distribution was as follows:

Range	In-bound	Out-bound
United States-Canada	2, 061, 122	1, 277, 466
Central America-Mexico	1, 782, 821	268, 218
South America	1, 600, 994	1, 039, 197

Annexes C and D give the total sea-borne cargo in-bound and out-bound through German ports in 1936 and 1937, with a break-down by commodities and by points of origin and destination for 1936.

(b) *Near East and Far East trades.*—The more important services in the Near East and Far East trades were provided by freighters but there was one fast express service operated by North German Lloyd. It ran monthly to Japan and consisted of three modern and fast passenger vessels.

Imports from the Near East and Far East were nearly double the out-bound cargoes and together the freight moved amounted to 17 percent of the total long-haul trade. Trade with India amounted to over a million tons while trade with the Far East and Australia totalled nearly two million tons (see annexes C and D).

(c) *African trade.*—Services to Africa included direct sailings to

⁴ This includes cargo carried on non-German as well as German ships.

West Africa and return, sailings to East Africa via the Suez Canal, and sailings to East Africa via the Cape of Good Hope.

On the basis of cargo tonnage, in 1936, 8 percent of Germany's long-haul trade was with Africa, excluding North Africa. Most African imports came from West Africa. They included logs and timber, fresh fruits and vegetables, and oil seeds and oil fruits (cocoa).

(d) *Mediterranean trade.*—The main services to this area were furnished by the Atlas Levant Line which owned about 68,000 GRT of vessels. Other vessels traded as tramps during the grain season. A large tanker fleet handled petroleum products from Rumania.

The total movement of cargo between Germany and the Mediterranean exceeded four and a half million tons, or 28 percent of the long-haul trade. Petroleum products were among the more important imports, and over three-fourths of the exports were coal and coke.

(e) *Between Non-German Ports.*—Of 100,000 GRT of shipping which in 1939 plied between non-German ports exclusively, 95,000 tons was attracted by the heavy cargoes offered on the United States Atlantic and Gulf to Far East run (60,000 tons) and the United States Gulf to east coast of South America route (35,000 tons). Small feeder services operated from the Panama Canal to Ecuador while others served the South Sea islands from Hong Kong. Two passenger vessels also maintained regular service from the east coast of South America via Capetown to West Africa.

(2) *Coastal trade.*—It is not possible to determine total tonnage allocated to German coastal shipping, but it may be presumed to have been considerable. In 1937 tramp steamers operated in the coastal and short-run foreign trade had a total tonnage of 434,000 GRT. No other figures are available.

However, both coastal and short-run foreign trade were extremely important and traffic was heavy, particularly in bulk commodities. In 1936 the total cargo handled in the short-run foreign trade was 23,810,203 metric tons. It was distributed as follows:

Range	In-bound	Out-bound
Scandinavia-Baltic with arctic Russia.....	7, 690, 499	5, 591, 932
Great Britain.....	3, 908, 812	1, 095, 362
Holland-Spain.....	3, 241, 286	2, 282, 312

Coastal trade within Germany also consisted mainly of bulk commodities. Its port-to-port movement during 1936 is shown in annex E. It is normally in excess of 10,000,000 metric tons per year.

d. *The Merchant Marine and Foreign Exchange.*—In considering the German merchant marine in relation to the total national economy it should also be remembered that Germany acquired considerable

foreign exchange because payments made to German steamship companies by foreign sources exceeded expenditures in foreign ports.

Details regarding the foreign exchange thus acquired are given in annex F. The years covered are 1926 through 1937.

The total net known income for the years involved was 4,466,000,000 RM. It varied from 193,000,000 RM. in 1933 to 545,000,000 RM. in 1929.

2. Structure of the German Merchant Marine.

a. Number of Ships and Total Tonnage.—In 1939 the German merchant marine consisted of 2,466 ships with a total tonnage of 4,492,708 gross registered tons. This figure includes 10,046 tons of sailing vessels and barges. Steamships made up 74 percent of the fleet and motorships nearly 26 percent.

At this time the German merchant marine was the fifth largest in the world. It was exceeded only by the merchant marines of Great Britain (21,215,261 GRT), the United States (12,003,028 GRT), Japan (5,629,845 GRT), and Norway (4,834,902 GRT).

b. Age, Size, and Type.

(1) *Age classes.*—In general, the German fleet was fairly new. The useful life of a ship is generally regarded as 20 years. It should be noted that in 1939 only 19.3 percent of German tonnage was more than 20 years old. It should also be noted that 19.9 percent was less than 5 years old.

A break-down by age classes follows:

Age	Ships	GRT	Percent
Under 5 years.....	481	892, 354	19. 9
5-10 years.....	216	235, 975	5. 3
10-15 years.....	351	1, 027, 197	22. 9
15-20 years.....	545	1, 459, 527	32. 6
20-25 years.....	185	233, 493	5. 2
Over 25 years.....	681	634, 116	14. 1

(2) *Tonnage classes.*—The German merchant marine was well provided with vessels of all sizes. The greatest tonnage was available in vessels between 2,000 and 8,000 tons. A majority of vessels of this size are useful ocean-going freighters.

A break-down by tonnage classes follows:

Size (GRT)	Ships	Tonnage
20,000 and over.....	11	322, 868
15,000-20,000.....	11	188, 265
10,000-15,000.....	22	272, 936
8,000-10,000.....	48	418, 465
6,000-8,000.....	126	883, 423
4,000-6,000.....	175	878, 505
2,000-4,000.....	230	655, 329
1,000-2,000.....	245	354, 104
500-1,000.....	275	211, 027
100-500.....	1, 318	297, 742

(3) *Type classes*.—A break-down by type of vessel is available only for ships of 2,000 gross registered tons or more. It is given in table 2-a; the figures are for 1 September 1939.

Table 2-a. German merchant marine, breakdown by vessel type

Type	No. of vessels	Gross tonnage	Deadweight tonnage
Combination passenger and freight vessels : ¹			
Passenger.....	7	223, 182	62, 300
Passenger cargo.....	43	556, 392	394, 000
Cargo passenger.....	61	392, 567	529, 700
Total.....	111	1, 172, 141	986, 000
Cargo vessels:			
General cargo.....	421	1, 970, 913	3, 075, 300
Refrigerated cargo.....	17	65, 296	63, 600
Bulk carriers.....	26	89, 631	140, 000
Total.....	464	2, 125, 840	3, 278, 900
Tankers (except whalers and whaling tankers).....	27	179, 380	268, 300
Grand total.....	602	3, 477, 361	4, 533. 200

¹ Passenger vessels are those whose deadweight is less than their gross. Passenger cargo are those whose deadweight is less than their gross but not less than one-half. Cargo passengers are those whose deadweight exceeds their gross.

A more detailed break-down of vessel types, but for the earlier year of 1938, is given in annex G.

3. New Construction, Maintenance, and Operation.

a. New Tonnage.

(1) *1919-1934*.—Before the war the provision of new tonnage constituted one of the largest problems of the German merchant marine.

Under the terms of the Armistice (11 November 1918) it was provided (a) that no ships could be destroyed before evacuation, surrender, or restoration, and (b) that no German shipping could be transferred to a neutral flag after the Armistice was signed.

Final disposition of the German merchant marine was made by the Treaty of Versailles, which required Germany to surrender all merchant vessels of more than 1,600 GRT, 50 percent of all German vessels of 1,000-1,600 GRT, and 25 percent of her fishing fleet.

In consequence, the total tonnage of the German merchant marine was reduced to only 672,671 GRT. In 1914 its total tonnage had been 5,239,000 GRT, and in 1919, even after heavy war losses, it had been 3,503,380 GRT.

In 1934, however, the merchant fleet had been restored to its 1919 level. This represented a net gain of nearly 3,000,000 tons, part of which was from new construction and part from purchases abroad.

Details as to the tonnage added in each of these categories are not available, but it is presumed that new construction supplied a considerable part. Between 1921-1933, 3,503,130 tons of shipping were built in German shipyards, and although some of this tonnage was for foreign account, much of it must have been added to the German merchant marine.

(2) 1934-1939.—During the early 1930's losses through ships scrapped, lost, sold foreign, etc., more than offset gains through new construction, foreign purchases, etc., with a consequent net loss of tonnage to the German merchant marine. But from 1936 on, the fleet increased in size. The gain or loss in tonnage from 1934-1937 and the factors involved in this gain or loss are shown in table 2-b.

Table 2-b. Net gain or loss of German merchant marine, 1934-1937

[In 1,000 GRT]

Additions to the fleet	1934	1935	1936	1937
New construction.....	31. 6	119. 4	183. 1	187. 7
Foreign purchases.....	6. 2	50. 1	63. 2	113. 9
Other.....	20. 6	4. 7	8. 9	4. 8
Total.....	58. 4	174. 2	255. 2	306. 4
<i>Withdrawals from the fleet</i>				
Scrapped.....	25. 0	50. 7	2. 0	2. 1
Lost.....	23. 1	4. 1	27. 2	22. 7
Sold foreign.....	69. 2	142. 4	37. 3	20. 5
Other.....	12. 2	8. 9	6. 6	16. 0
Total.....	129. 5	206. 1	73. 1	61. 3
Net change.....	-71. 1	-31. 9	+182. 1	+245. 1

At any rate from 1937 on, new construction for the German merchant marine was somewhat above the world average for new construction.

In 1937, for example, the tonnage of new ships built throughout the world was approximately 4 percent of the total existing tonnage. New tonnage built for the German merchant marine was approximately 4.7 percent of its existing total tonnage.

But it should be pointed out that the 187,700 tons of new ships acquired by the German merchant marine in that year was still somewhat below the approximately 200,000 tons needed to maintain its average age. With a ship's useful age set at 20 years, it is usually necessary to provide 5 percent of new tonnage annually against obsolescence.

The rate of delivery from German shipyards in 1937 would have been ample for this purpose if it had not been that considerable tonnage was built for foreign account. At the end of 1937 German

shipyards had on their books orders of 1,141,000 tons. Deliveries of ocean-going vessels in that year amounted to 390,000 tons, of which 56 percent went to foreign owners. German shipyards also produced 55,063 tons of river craft.

New construction turned out by the shipyards in Germany in 1937 is shown in table 3. It is classified by type of vessel.

Table 3. German shipyards, new tonnage in 1937

	Total tonnage	German account	Foreign account
Seagoing vessels:			
Motor vessels.....	280, 059	75, 386	214, 673
Steamships.....	102, 479	100, 330	2, 149
Other.....	7, 853	6, 483	1, 370
Total.....	390, 391	181, 199	218, 192
River craft:			
Motor craft.....	27, 579	27, 579	-----
Steam craft.....	7, 580	2, 901	4, 679
Other.....	19, 904	16, 283	3, 621
Total.....	55, 063	46, 763	8, 300

Further details regarding German shipbuilding in 1929—the last predepression year—and in 1937 are given in annex H.

The latest available pre-war figures indicate that on 30 June 1939, 137 cargo vessels with a total tonnage of 401,000 GRT and 9 tankers with a total tonnage of 79,000 GRT were under construction in North Sea and Baltic yards. Of these vessels, 60 percent were for foreign account.

It is estimated that the total annual capacity of the German shipbuilding industry is about 600,000 GRT if there is no naval building and if Danzig is included. In 1922, a record year, 525,828 GRT were launched.

The shipbuilding industry is further discussed in B, 3, a, i, below. In annex S, which forms a supplement to that section, a list is given of the principal German shipyards at the present time. Since no new important shipyards are known to have been built since the beginning of the war, this gives a fair indication of the situation in regard to shipyards before the war.

b. Repair Facilities.—Repair work was done largely by the same shipyards which engaged in construction work. In peacetime from 20 to 30 percent of all shipyard employees were almost constantly engaged in repair work, including overhauling, painting, bottom cleaning, etc.

c. Fuel.—Bunkering practices by German ships differed according to the type of vessel and the distance traveled. Because Germany

had ample supplies of coal, coal-burning vessels usually bunkered for the round trip on short runs where the turn-around time was less than 30 days. On the other hand, bunker oil was largely imported and oil burners refueled in foreign ports as far as possible.

Figures regarding total coal and oil consumption of the German merchant marine are not available, but 405,690 metric tons of bunker oil were imported in 1938.

The German tanker fleet consisted of 37 vessels, totaling 256,093 GRT.

d. Manpower.

(1) *Personnel*.—Reliable figures as to employment in the German merchant marine are not available for any date later than 1935. At that time the German shipping industry is estimated to have employed approximately 280,000 persons directly or indirectly. Of these, 37,199 were employed on seagoing vessels. The rest were employed in transshipment, port establishments, forwarding agencies, steamship companies, etc.

A break-down of the employment on merchant ships on 1 July 1935 is given in table 4.

Table 4. Employment on merchant ships, 1935

Personnel	Steamships	Motorships	Sailing vessel ¹	Other sailing vessels	Total
Officer:					
Deck	3, 093	512	21	10	3, 636
Engine room	2, 614	614	-----	6	3, 234
Steward's department	396	207	4	-----	607
Total	6, 103	1, 333	25	16	7, 477
Subordinate ratings:					
Deck	7, 636	1, 534	42	53	9, 265
Engine room	7, 637	1, 196	-----	6	8, 839
Steward's department	9, 265	2, 325	21	7	11, 618
Total	24, 538	5, 055	63	66	29, 722
Grand total	30, 641	6, 388	88	82	37, 199

¹ Sailing vessels with auxiliary motors.

(2) *Source of supply*.—All seamen, whether engaged in ocean or in inland waterway shipping, were members of the Seaman's Association (*See-Berufsgenossenschaft*). An analysis of its membership, therefore, gives some indication of the sources of supply for shipping personnel.

In July 1935 this association had 46,382 members. Of these, 44,072 were Germans, 2,472 were from foreign countries, and 288 were of unknown origin. Of the German membership, 32,994 came from cities, districts, or states along the coastline and 11,078 from cities or states in the interior. In proportion to population, Bremen was the greatest supplier of seamen with 676.6 seamen per 100,000

inhabitants. Württemberg, at the other end of the scale, supplied 6.5 seamen per 100,000 inhabitants. Further information regarding the supply of seamen and attendance in schools for seamanship are given in annex I.

(3) *Training and standards*.—Before 1936 prospective seamen for the German merchant marine signed on voluntarily and learned their trade on shipboard. Those, however, who wished to be trained as engineers or deck officers could enter one of the trade schools maintained by the states (*Länder*). They had to pay their own tuition.

There were schools at Altona, Bremen, Elsfleth, Flensburg, Hamburg, Itamburg, Leer i. Ostfriesland, Lübeck, Stettin, Wesermünde and Wustrow i. Mecklenburg.

To each school were attached deputies for the marine trade schools (*Reichsbeauftragter für das seemännische Fachschulwesen*). These deputies were under the jurisdiction of the Minister of Transport and represented the Reich in matters pertaining to the training of seamen. The Reich assumed the responsibility of examining graduates of the schools, to some extent prescribed the curriculum, and set up uniform standards.

During 1937 and 1938 the Reich Transport Group for Ocean Shipping planned a reorganization of the training and selection of seamen. It is not known how much of this program was interrupted by the war, but it is believed that the larger part of it was put into effect.

Under the reorganized system, the prospective seamen first filed an application with the Central Office for Preparatory and Vocational Training for Ocean Shipping (*Zentralstelle für Vorausbildung und Berufslehre in der Seeschifffahrt*) in Hamburg-Altona. He then went before an examining commission composed of members of the German Labor Front (*Deutsche Arbeitsfront—DAF*), Hitler Youth (*Hitler Jugend*), Reich Transport Group for Ocean Shipping (*Reichsverkehrsgruppe Seeschifffahrt*), and the Seaman's Association (*See-Berufsgenossenschaft*). Selection and allocation to the appropriate branch were made by this commission. Apprenticeship began with a 4 weeks' course at beginners' school for seamen (*Seevorschule*). These schools were in Bremen, Hamburg, and Stettin. Following this course the student was given a contract (*Lehrvertrag*) and went to sea for a 3-year apprentice period. He then was made a seaman, lower grade (*Leichtmatrose*). To become a seaman (*Vollmatrose*) he then went to a Reich school (*Seeberufsschule*) for 6 weeks. Quarters and subsistence were supplied by the Reich. After passing the prescribed examinations, he received his new grade.

Any seaman who had reached the age of 21 and had followed his apprenticeship with 2 years' experience at sea, was eligible for one of the officers candidate schools (*Offiziersanwärterschule*) run by the

Reich. After at least three semesters he could take an examination and if he passed he received an A-5 certificate qualifying him as mate on ocean-going voyages (*Steuermann auf grosser Fahrt*).

After at least 1 year at sea he could again go to a State school for 20 weeks. If he passed the prescribed examinations he received an A-6 certificate qualifying him as a captain on an ocean-going voyage (*Kapitän auf grosser Fahrt*).

If the apprentice worked for a small company with only one boat, he was required to change to another company every year. The time he spent at various schools was credited to his time as an apprentice. During the time he spent at sea studying to become a seaman lower grade, or a seaman, the Division of Energy, Traffic, and Administration (*Fachamt, Energie, Verkehr, Verwaltung*) of the German Labor Front (*Abteilung Berufserziehung Seeschifffahrt*) provided all the necessary material for his higher education.

(4) *Rank*.—The following ranks were set up by the Reich Transport Group for Ocean Shipping in cooperation with the Navy and the German Labor Front:

<i>United States Rank</i>	<i>German Rank</i>
Master.....	Kapitan.
Chief Officer.....	1ter Offizier.
2d Officer.....	2ter Offizier.
Chief Engineer.....	Loitender Ingenieur (1ter Ing.).
2d, 3d, 4th Engineer.....	2ter, 3ter, 4ter, Ingenieur.
Engineer Assistant (Junior Engineer)...	Ingenieur Assistant Funkoffizier.
Radio Officer.....	1ter Funkoffizier.
2d Radio Officer.....	2ter Funkoffizier.
Purser.....	Zahlmeister.
Chief Electrician.....	1ter Elektriker.
2d Electrician.....	2ter Elektriker.
Boatswain.....	Bootsmann.
Seaman.....	Matrose.
Seaman Lower Grade.....	Leichtmatrose.
Trimmer.....	Reiniger.
Engineer Attendant.....	Maschinenanwärter.
Chief Steward.....	1ter Steward.
Messroom Steward.....	Messesteward.
Carpenter.....	Zimmerman.
Cook.....	Koch.
Cook's Mate.....	Kochsmaat.
Storekeeper.....	Lagerhalter.
Oiler.....	Schmierer.
Boy.....	Junge.
Cabin Boy.....	Schiffsjunge.
Fireman.....	Feuermann.

(5) *Wages*.—Pay rates for all personnel except wireless operators employed aboard ocean-going vessels of more than 100 GRT were fixed by the Collective Regulation of December 1934. Under its provisions, wages were set by the government after conference with rep-

representatives of the owners and labor. The minimum pay for captains ranged from 400 to 550 RM. per month according to the type of vessel. The pay of other officers ranged from 130 to 450 RM. per month. The pay for deck and engineer hands ranged from 25 RM. for a boy to 124 RM. for a first boatswain or a first carpenter. In the steward's department, pay ranged from 25 to 124 RM. per month aboard freighters, and from 113 to 430 RM. per month in the passenger service. In all cases, subsistence was provided. Details regarding pay rates in the German merchant marine are given in annex J.

4. Organization.

a. The Government and Merchant Shipping.

(1) Administration and Control.

(a) *The Ministry of Transport*.—The merchant marine was under the jurisdiction of the Reich Ministry of Transport (*Reichsverkehrsministerium*). In 1939 this Ministry consisted of two main categories of departments (*Abteilungen*): (a) the Railroad Department and (b) the Departments of Ocean Transport, Motor Transport, Inland Shipping and Waterways, known as S-K-B-W (*Seeschifffahrt, Kraftverkehr, Binnenschifffahrt, Wasserstrassen*).

For purposes of organization, however, the railroad Department was headed by a Secretary of State, who was also in charge of administration and inland waterways and shipping, while ocean transport and motor transport are each under the direction of an Under-Secretary of State (see chart 1).

Special authorities, advisory councils, etc., were under the supervision of a Bureau Director (*Bürodirektor*).

Within the Ministry two divisions were concerned with shipping: (a) the Division of Hydraulic Engineering (*Wasserbau-Technische Abteilung*), and (b) the Division of Shipping (*Schiffahrtsabteilung*).

The Division of Hydraulic Engineering was in charge of dredging channels and constructing works used by or required for the safety of seagoing vessels. It also built and maintained lighthouses and lightships and set out buoys. The Division of Shipping was the central administrative agency for shipping. It controlled personnel and had great influence in determining the general policies of ocean shipping, particularly as related to the economy of the country.

Attached to the Ministry of Transport were also the following special commissions or boards (*Behörden*) (see chart 2):

1. *Kiel Canal Office (Reichskanalamt in Kiel)*.—This office was in Kiel. It operated and administered the Kaiser Wilhelm ship canal. Subordinate to it were the Water Transport Offices in Kiel-Holtenau and the harbor captains (*Hafenkapitän*) at Brunsbüttelskoog and other canal cities.

Chart 1—ADMINISTRATION OF OCEAN TRANSPORT IN THE REICH MINISTRY OF TRANSPORT, 1939

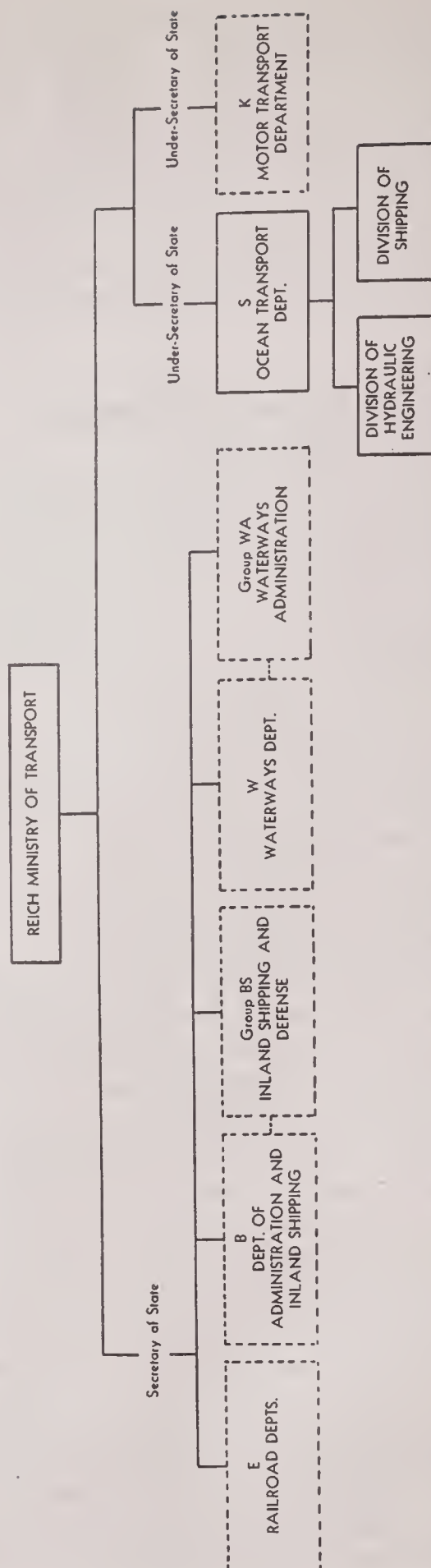
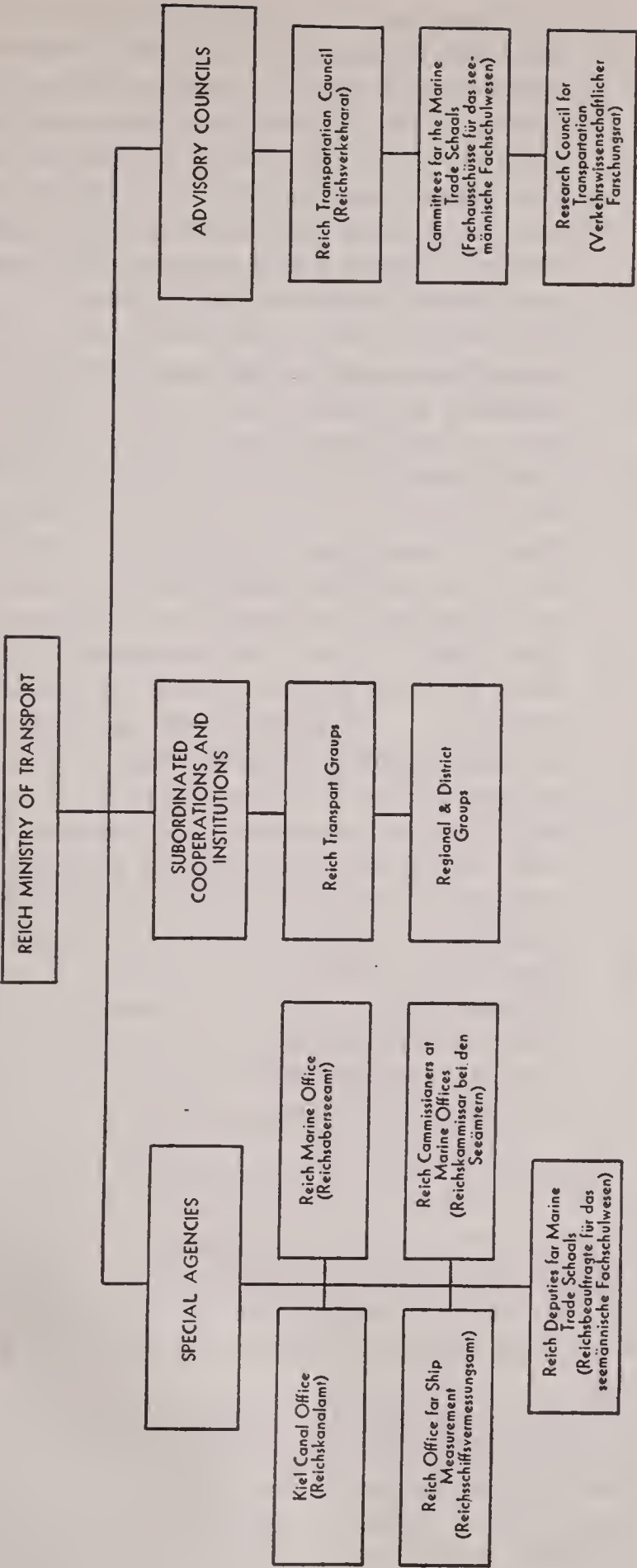


Chart 2—AGENCIES, SUBORDINATED COOPERATIONS AND INSTITUTIONS AND ADVISORY COUNCILS
RELATED TO OCEAN SHIPPING IN THE REICH MINISTRY OF TRANSPORT, 1939



2. *Reich Office for Ship Measurement (Reichskommissariat für Seeschiffsvermessung)*.—This office functioned as a coordinator of the local measuring offices which were maintained in ten of the more important port cities. It determined the legal loading capacity and legal load lines. Certificates of measurement were usually issued in the home ports of ships by the local authority. In Prussia, Oldenburg, and Lübeck it also prepared official certificates of tonnage for entry in the Ships' Register.
3. *Reich Marine Office (Reichsoberseesamt)*.—This office functioned as a board for the investigation and adjustment of maritime disasters in the merchant marine. It was the court of final appeal from decisions of the 11 marine offices (*Seeämter*) in Königsberg, Stralsund, Rostock, Lübeck, Flensburg, Tönning, Hamburg, Bremerhaven, Brake, Emden, and—formerly—Danzig. Locally each marine office consisted of an appointed judge, and four associates, two of whom represented the shipping industry. The Reich Marine Office was represented in the local marine offices by Reich Commissioners (*Reichskommissar bei den Seeämtern*). Where the ports were small, a Reich commissioner might serve more than one marine office.
4. *Reichs Deputies for Marine Trade Schools (Reichbeauftragte für das seemännische Fachschulwesen)*.—These deputies were attached to the Reich Ministry of Transport to represent the Reich in matters pertaining to the training of seamen. (See Training and Standards above.)
5. *Liaison Office Between the Division of Shipping and the German Navy (Verbindung Schiffahrt—Marine)*.—This office was responsible for coordination with the Navy in matters of communication, distress at sea, ice patrol, and preparing and arming merchant ships for war service.

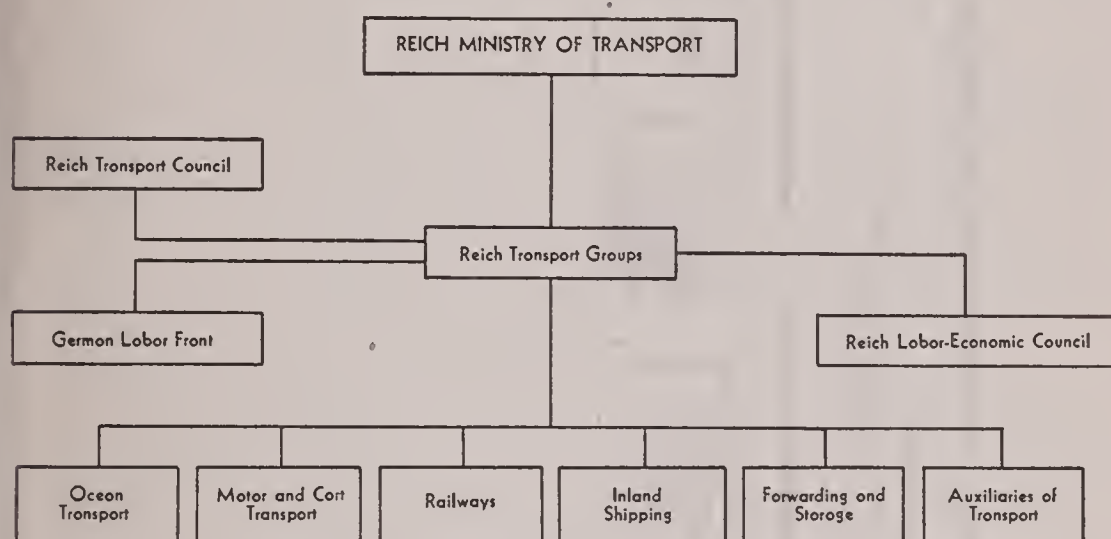
(b) *Transport Group for Ocean Shipping*.—Closely related to the Ministry of Transport and cooperating with it in matters of commercial policy was the National Transport Group for Ocean Shipping (*Reichsverkehrsgruppe Seeschiffahrt*), which in turn was a part of the National Association of Transport Groups (*Reichsverkehrsgruppen*) representing the main kinds of transport (charts 3 and 4).

The National Transport Groups were authorized by the decree of 25 September 1935 (RGLI S.1169). Under this law all legally recognized kinds of transport were grouped by specialities into transport groups. The Reich or National Transport Groups were, in turn, divided into subgroups or trade groups (*Fachgruppen*). With

the consent of the Reich Minister of Transport the trade groups might organize on a regional and a district basis (*Bezirksverkehrsgruppen und Bezirksuntergruppen*). In the case of the shipping groups the subdivisions were not based on political boundaries, but on port zones.

The leaders (*Leiter*) of the Transport Groups were appointed or dismissed by the Reich Minister of Transport. With the consent of the Reich Minister of Transport, they might select their assistants, the business managers of the respective Reich transport groups (*Hauptgeschäftsführer*), and the leaders of the trade groups. Each Reich transport group had a legal council (*Beirat*) whose prerogatives and powers are defined in the law cited above (par. 18-20).

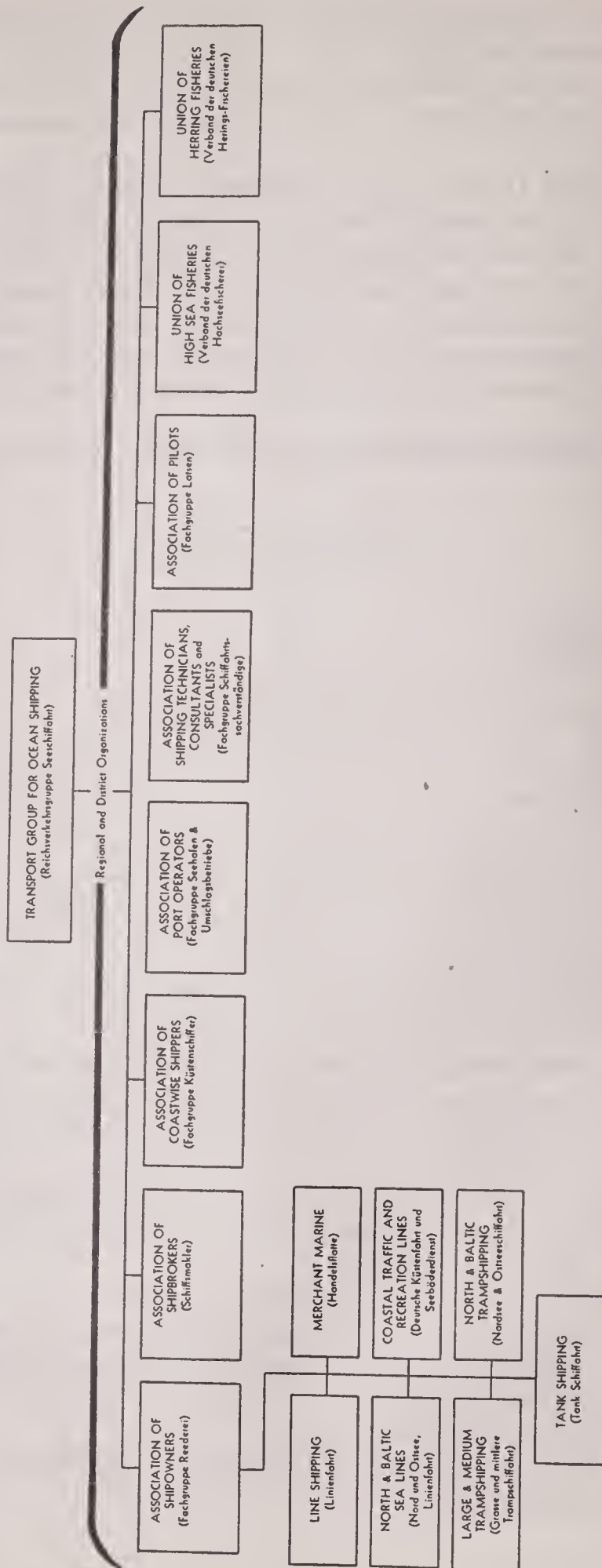
Chart 3—TRANSPORT GROUPS AND THEIR RELATIONSHIP TO REICH AUTHORITIES



The Transport Group for Ocean Shipping (*Reichsverkehrsgruppe Seeschifffahrt*) was divided into nine trade groups:

1. Association of Shipowners (*Fachgruppe Reederei*) ;
2. Association of Whalers (*Fachgruppe Walfang-Reeder*) ;
3. Association of Coastwise Shippers (*Fachgruppe Küsten-Schiffer*) ;
4. Association of Ship Brokers (*Fachgruppe Schiffsmakler*) ;
5. Association of Port Operators (*Fachgruppe Seehafen-und Umschlagsbetriebe*) ;
6. Association of Pilots (*Fachgruppe Lotsen*) ;
7. Association of Shipping Technicians, Consultants, and Specialists (*Fachgruppe Schifffahrtssachverständige*) ;
8. Union of High Seas Fisheries (*Verband der Deutschen Hochseefischereien*) ;
9. Union of Herring Fisheries (*Verband Deutsche Herings-Fischereien*).

Chart 4—ORGANIZATION CHART OF THE OCEAN SHIPPING TRANSPORT GROUP



The Association of Shipowners, along with other trade groups, was set up as a public corporation under the emergency legislation of 23 December 1931 and by the law of 16 June 1933. It was charged with (1) market regulation and the supervision of compulsory cargo sharing; (2) the establishment of registration centers (*Neldestellen*) where boat owners were required to report cargo carried and cargo space available; (3) coordination with the government.

It was financed by a levy upon its members of 3 or 4 pfennigs per gross ton owned. Originally membership was voluntary but when the association was attached to the newly constituted National Transport Group for Ocean Shipping in 1935, membership was made compulsory for every German shipowner engaged in shipping between Germany and non-German ports. Shippers engaged in traffic between German ports belonged to the Association of Coastwise Shippers.

The association was the channel used by the government in all dealings with shipowners.

(c) *The Leadership Organization*.—At about the same time German shipping was placed under the peak organization for German shipping (*Spitzenvertretung der Deutschen Seeschifffahrt*). The exact scope of the relationship is not clear. This organization derived its power from legislative authority, and membership was made compulsory for all associations, groups of associations, and individual businesses concerned with shipping.

(d) *Reich Transport Council (Reichsverkehrsrat)*.—By the law of 27 February 1934, entitled "a law to simplify and reduce the cost of the administration of transport," the Reich Minister of Transport was made the sole leader of a unified and coordinated German transport policy. He was to be the middleman between the Reich and those Germans who made up the transport group. To advise him in this function and to provide him with basic information on the major transportation problems, a Reich Transport Council was called into being early in 1934. It was composed of (a) representatives from the transport groups or where there was no transport group, the carriers, and (b) representatives of the users of transport facilities. This council did not have the power to make decisions. One of the six transport groups in the Reich Transport Council was the Transport Group for Ocean Shipping. The members of the Council were appointed by the Minister of Transport and served without pay. The Minister was empowered to determine how often the Council should convene.

(e) *Reich Chamber of Economy and Labor Front (Reichswirtschaftskammer und Deutsche Arbeitsfront)*.—Ocean shipping was also represented in the Reich Chamber of Economy. By the concurrence of the Reich Ministry of Transport with the agreement of 3 March 1935 between the Reich Economic Minister (*Reichswirtschaftsminister*),

the Reich Minister of Labor (*Reichs Arbeitsminister*), and the Reich leader of the Nazi Party (*Reichsorganisationsleiter der NSDAP*), the Reich Transport Groups were members of the German Labor Front (*Deutsche Arbeitsfront-DAF*). Before Hitler, unions representing labor engaged in ocean shipping were organized on the basis of trades. In the early days of Hitler, they were absorbed by the Labor Front, which seized their funds.

(2) *Subsidies and Government aid.*

(a) *Estimated amount of subsidies and aids.*—Since the advent to power of the Nazi government, it has become impossible to obtain an accurate picture of subsidies and other government aids to shipping. Budget figures for government aids to shipping were very rarely published, and such figures as were given out were largely meaningless, due to transfers from one fund to another without notice. It is estimated, however, that subsidies and other aids to shipping averaged from \$20,000,000 to \$25,000,000 per annum.

(b) *Types of Government aid.*—The following types of government aid have been extended to shipping companies in recent years:

1. Construction bounties;
2. Interest contributions on construction costs;
3. Scrapping loans;
4. Loans to shipyards;
5. Reduced rail rates on shipbuilding material;
6. Remission of customs duty on certain materials;
7. Use of exchange restrictions to favor national ships;
8. Operating subsidies, reimbursement for losses;
9. Reservation of the coasting trade;
10. Government passengers and cargo reserved to national vessels;
11. Use of quotas and business restrictions to force merchants into shipping by German vessels;
12. Use of shipping provisions in barter agreements with foreign countries;
13. Preferential rail rates for Central European shippers using German ports.

In certain cases, loans from private banks had the effect of government aid since the government exercised considerable control over the banks and could compel reduction of interest or even forgiveness of principal.

(c) *Construction bounties, interest contributions, scrapping loans.*—No construction bounties were granted by Germany before World War I and no bounties were given after the war prior to 1934 except those advanced in rebuilding the German merchant fleet following its confiscation by the Allies. Among the funds advanced in

this connection was a loan of 50,000,000 RM.—at a low rate of interest—made in 1925, and a loan of 18,000,000 RM. made in 1926.

Those loans were supplemented by direct interest contributions against bank loans, among which was a private loan of 45,000,000 RM. to North German Lloyd to enable it to build the "*Bremen*" and the "*Europa*."

In 1934 the government granted a construction bounty in order to reduce unemployment and to continue the rebuilding of the merchant marine. This bounty began at 20 percent of the cost of construction, plus 4 percent per annum for 6 years on the remaining four-fifths of the cost, as an interest contribution. A sum of 8,700,000 RM. was reported set aside for this project. In 1935 the contribution was estimated as 10,000,000 RM., and in 1936 the bounty was made a flat 30 percent. It is not known whether this bounty was continued in 1937.

In 1932 a scrapping loan of 12,000,000 RM. was granted. It is believed that none of this has been repaid.

(d) *Operating loans, operating subsidies, etc.*—With the collapse of the German Bank (*Deutsche Bank*) in July 1931, the shipping companies found their credit cut off. The state credit company (*Reichskreditgesellschaft*) granted a secret loan of 20,000,000 RM. at 11 percent, and in March 1932 the government granted a direct loan of 70,000,000 RM. to the liner companies and 7,000,000 RM. to the operators of tramp ships.

When the German shipping companies were reorganized in 1935 pressure was put on government and private banks, and interest rates on outstanding loans of these organizations were reportedly substantially written off. The loans thus became a direct bounty.

Direct navigation subsidies were granted in 1933, in order to counteract depreciated foreign currencies and increase employment by putting laid-up vessels in operation. This was the first German navigation bounty, with the exception of a few minor contract mail payments in pre-war days. On the basis of shipping balance sheets, payments in 1934 were estimated as at least 40,000,000 RM. per year. Payment is reported to be on the basis of 3 reichspfennings per day for each gross registered ton in service, and a further contribution equal to 20 percent of the crew wages. The maximum annual payment must not exceed 15 RM. per gross ton per annum for vessels over 1,000 GRT in size.

For daily expenses of ships of various types operated by the Hamburg-America 1936, see annex K. This annex shows, among other thing, the subsidies paid to each ship.

(e) *Discriminations.*—Under the Nazis regime, import and exchange controls have been used to force German business and indi-

viduals to patronize national vessels. In the middle 1930's regulations went into effect which limited foreign companies in the withdrawal of freight or passage money received in Germany. This was in effect overt aid to German shipping in that it forced foreign companies to pile up an unusable balance in German banks, to purchase unwanted German goods, or to dispose of their holdings at a sacrifice. Hence it was more difficult for them to operate profitably than it was for a German company.

Numerous other discriminations are believed to have been used by Germany, including railroad rates which favored German ports and even, at an earlier time, quarantine regulations which diverted emigrants to German ships. Indeed, it has been stated that Germany has always been a major user of preference and discrimination in aiding its shipping.

(f) *Subventions to compensate for exchange losses.*—According to a report believed to be accurate, the net earnings of German lines from foreign sources were taken over by the government for use in building foreign exchange reserves. The companies were compensated in RM. at the rate of 2.50 RM. to the dollar. This rate was purely artificial, RM. being actually worth about 4.20 to the dollar. To offset this loss the German government paid cash subventions to lines engaged in foreign trade. The money was appropriated by the government and then turned over to the Association of Shipowners for allotment or credit to the various companies.

Total figures are not available, but it is reported that in the 3 years of 1936, 1937, and 1938, the Association of Shipowners, on behalf of the German government, paid an average of 10,340,000 RM. a year to North German Lloyd and 4,850,000 RM. a year to Hamburg-America Line or 45,570,000 RM. for the 3-year period. The value of these subventions in American money was \$18,228,000 if the artificial rate of 2.50 RM. to the dollar is used. It was \$10,849,000 if the world rate of 4.20 RM. to the dollar was the basis for computing.

Although the subventions represented 21.5 percent of the total earnings of North German Lloyd and 15.9 of the total earnings of the Hamburg-America Line, spokesmen for both the government and the Association of Shipowners stated that they did not fully compensate for the loss through this forced conversion. According to government spokesmen, the loss through these transactions was approximately 40 percent; generally speaking subventions were from 10 to 20 percent, although occasionally they were as high as 25 percent. Spokesmen for the Association of Shipowners stated that payments from the government amounted to less than half the loss.

b. Steamship Lines.

(1) *The Hapag-Lloyd combination.*—Between 1930 and 1935, the greater part of the German merchant marine was operated by Hapag-

Lloyd (Hamburg-America Line and North German Lloyd), a privately owned combination of shipping interests, which, according to some reports, operated as much as 70 percent of German shipping.

The Hapag-Lloyd combination operated under the so-called Union Treaty, an agreement which did not prove entirely satisfactory, particularly after world trade was reduced by the depression. As far back as 1932, therefore, the German government suggested that this large organization be split up into several smaller companies, and in the spring of 1933, the mayors of Hamburg and Bremen supported this position.

The reason given was that Hapag-Lloyd, with its many big ships designed for passenger traffic, was forced to continue services that were not profitable whereas medium-sized and smaller companies did not need to maintain services which did not pay their own way.

But it should be pointed out that the German lines were not the only ones with too many big expensive liners, and that in other countries (Italy, Great Britain) the solution was merger rather than dissolution of existing combinations. It should be pointed out also that when Hapag-Lloyd was dissolved the German government acquired large blocks of stock in Hamburg-America, North German Lloyd, and other companies, making payment by cancelling some part of outstanding loans.

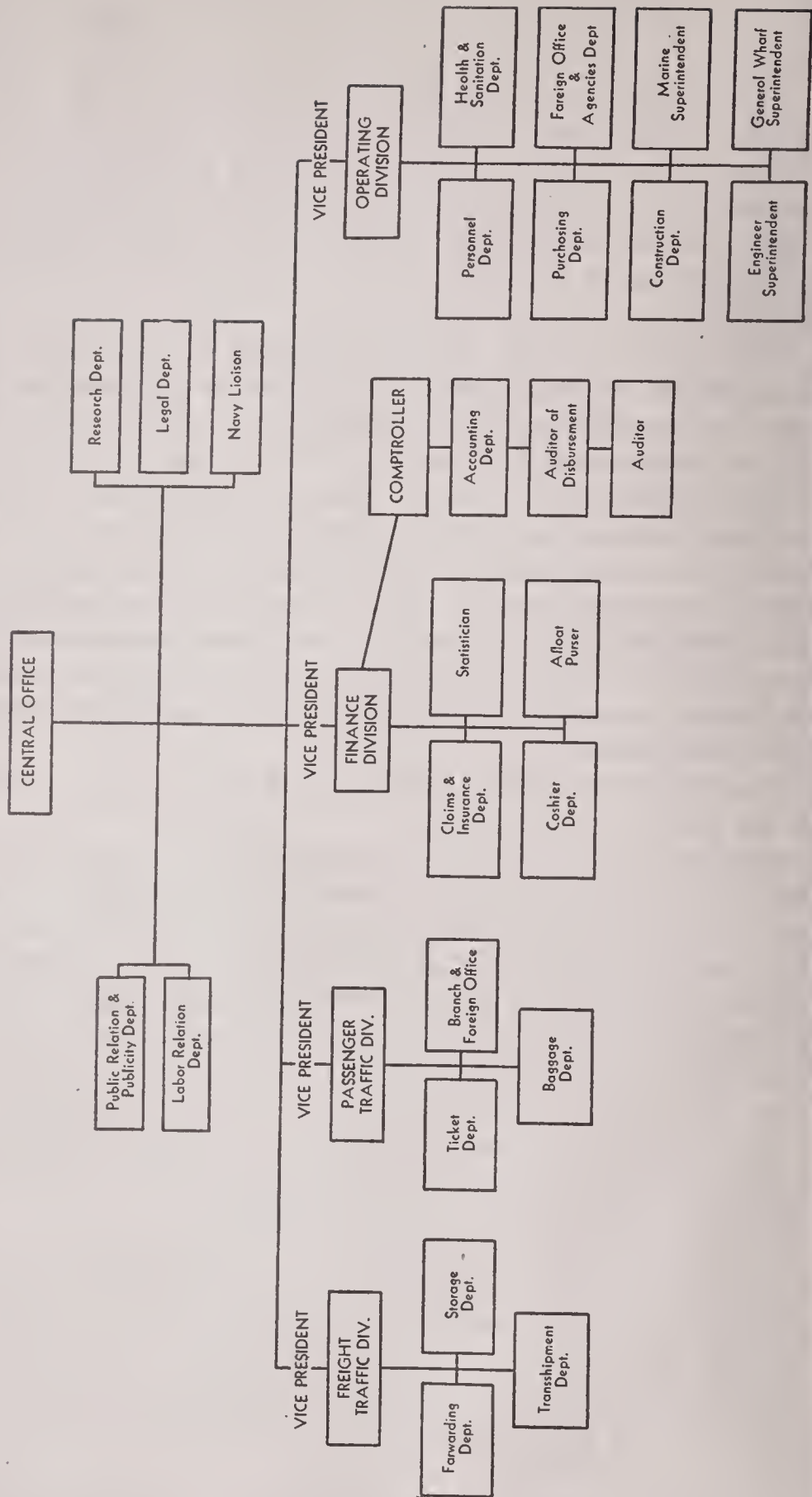
Presumably, therefore, financial considerations played some part in the proposed arrangements.

However that may be, in February 1935 a decree of the Reich ordered a reorganization of German shipping along the lines proposed, and at the same time the councils of the Hamburg-America Line and North German Lloyd approved a new agreement which, while providing for continued cooperation, gave the individual companies far greater opportunities for independent action. The reorganization proved very satisfactory to the shipping companies and was still in effect at the outbreak of the war in September 1939.

At this time, the Hamburg-America Line operated 101 ships with a total tonnage of 715,000 GRT and North German Lloyd operated 70 ships with a total tonnage of 575,000 GRT.

(2) *Other German steamship lines.*—In 1939 other important German steamship lines included the Hamburg-South American Line (48 ships of 358,000 GRT), Hansa (42 ships of 286,000 GRT), the German-Africa Line (18 ships of 158,000 GRT), and several others. Lines of this category were greatly benefited by the reorganization of 1935, which eliminated the danger of their absorption by the big Hapag-Lloyd combine.

In 1936 the German Labor Front (*Deutsche Arbeits Front, DAF*) began acquiring vessels for Strength Through Joy (*Kraft durch*



Freude) to be used by its membership. The plan was to build annually for 5 years one vessel of 25,000 GRT and thereafter vessels of 12,000 to 15,000 GRT until the organization had a fleet of from 15 to 20 vessels. At the beginning of the war the German Labor Front operated the following vessels:

	GRT
Oceana -----	8, 791
Robert Ley -----	22, 000
Wilhelm Gustloff -----	25, 484
Der Deutsche -----	11, 483
Sierra Cordoba -----	11, 492
Stuttgart -----	13, 387

Germany also possessed a large fleet of tramps. In times of depression these suffered from the competition of line vessels diverted to this service. A government decree of September 1936 provided for distribution of cargo available in German ports between coastwise lines and operators of tramp services, the latter to obtain most of the bulk, the former most of the package cargo.

Further information regarding important German steamship companies is given in annex L.

(3) *Organization and administration.*—In general German shipping companies were organized similarly to shipping companies throughout the world. However, because of the nature of government control in Germany, the legal department, the labor relations department, and the navy liaison had close connections with the government. The organization of a typical shipping company is shown in chart 5.

B. The Merchant Marine During the War.

1. Wartime Function of the Merchant Marine.

a. *Overall Picture.*—Upon the outbreak of the war in 1939, the nature of the services performed by the German merchant marine changed radically. Whereas in the case of Great Britain and later the United States, the national merchant marines were obliged to extend themselves and to take on added burdens in their overseas services, the German merchant marine was forced to draw in.

Total figures for the distribution of German shipping are not available, but in 1939 at least 40 percent of Germany's total tonnage was engaged in berth sailings to foreign ports. But after the outbreak of hostilities, all long-run foreign sailings were abandoned except for the relatively few ships which could run the blockade.

On the other hand, coastal and short-run foreign traffic took on increased importance.

Among the services used by Germany during the war are the following:

- (1) Germany to Norway;
- (2) Germany to Sweden and the Baltic;
- (3) Germany to Northwest Europe;
- (4) Bay of Biscay to Spain and Portugal;
- (5) Mediterranean and Black Sea traffic.

There was also developed a small blockade-running traffic to the Far East. It was important because it handled critical materials.

b. Northern Waters.

(1) *Norway*.—For some time the greatest concentration of German and German-controlled tonnage has been in traffic between Germany and German-controlled ports and Norway, or along the Norwegian coast. Moreover, the tonnage requirements in this area have recently been considerably increased.

On 15 August 1943 Sweden cancelled the transit facilities which had been granted to Germany in 1940. Troops and military stores, which were formerly sent over the Swedish railways to Norway had, therefore, to be sent by sea, and this required additional tonnage. Much personnel and light stores are now sent by sea to Oslo and thence by rail to Central Norway. The shuttle service of troopships operating between Oslo and Danish ports has been augmented and speeded up to deal with the additional traffic. The fleet of military supply ships operating between Germany and Norway has been reinforced for the carriage of heavy stores.

At the end of 1943, 1,450,000 GRT of shipping were known to be operating on the Norwegian Coast. Of this total 950,000 GRT were engaged in commercial traffic, 380,000 GRT were engaged as troop transports and service supply ships, and 120,000 GRT were tankers. No less than 750,000 GRT of the vessels trading commercially were carrying supplies between Germany and Norway.

It should be noted that shipping in the Norwegian area falls into three categories: (a) overseas shipping; (b) coastal shipping; and (c) short-range distributive shipping.

If traffic in the Oslo zone is accorded an activity rating of 100, the relative density of the three types of traffic in the seven administrative zones of Norway is as follows:

Table 5. Comparative density of traffic by zones

Zone	Short-distance distributive traffic	Coastwise traffic	Oversea traffic	Total traffic
Oslo.....	100	100	100	100
Stavanger.....	36	100	57. 5	62. 5
Bergen.....	36	100	54. 5	61. 75
Trondheim.....	70	108. 5	46	56
Narvik.....	59	79	30	38
Tromsø.....	87	52	21	27. 5
Kirkenes.....	29	10. 5	10. 5	11

Projected seaborne traffic to and from Norway during 1943 is shown in annex M, which gives projected traffic north of Dover. A density chart estimating the flow of seaborne traffic for all Scandinavian trade is shown in annex N.

(a) *Overseas shipping.*—As indicated above, the greatest concentration of overseas traffic is in the Oslo area. The density of this traffic decreases progressively toward the north.

The average tonnage of the vessels employed in this service is approximately 2,500 GRT. Of these vessels 25 percent are of over 4,000 GRT, 54 percent between 1,000 GRT and 4,000 GRT, and 21 percent of less than 1,000 GRT.

Excluding those under 1,000 tons, ships engaged in this traffic are of three main types: (a) troopships; (b) large vessels of 4,000 GRT and over; (c) ships of 1,000–4,000 GRT.

The troopships are vessels of 2,000–9,000 GRT. Most have passenger accommodations. They are exclusively engaged in the transport of troops and war material of the first priority. The greatest concentration of these troopships is to be found on the route between German and Danish ports and Oslo, but a limited number based on Trondheim operate as far north as Tromsø.

Other ships of over 4,000 GRT are engaged almost entirely in carrying military stores and bulk commodities such as coal and coke from continental ports to Norway. They return with bulk cargoes such as mineral ores, woodpulp, and fertilizers. A large block of this tonnage does not proceed beyond the Oslo-Kristiansand South range. Some, however, trade to ports as far north as Kirkenes.

Of the vessels of 1,000–4,000 GRT class, most are under 3,000 GRT. They carry military stores and bulk commodities and are also employed for transporting provisions and general cargoes. Not only are they more equally distributed among the various zones than the larger ships, but they are also frequently used for transporting coastwise cargoes.

If 1943 estimates are correct, overseas traffic from Norway consists largely of iron ore (2,500,000 metric tons), pyrites (500,000), fish (350,000), fertilizers (130,000), and timber (110,000). Further details will be found in annex O, which also gives ports of destination and estimates for Sweden and Finland.

(b) *Coastwise shipping.*—Coastwise shipping is greatest between Trondheim and Oslofjord, the traffic in the former area being slightly greater than that in the Oslofjord, Bergen, and Stavanger (Kristiansand South) areas respectively. As is the case with overseas services, coastwise shipping diminishes rapidly north of Trondheim.

The average tonnage of vessels in coastwise service is 1,200 GRT, 4 percent of the vessels engaged being over 4,000 GRT, 30 percent between 1,000 and 4,000 GRT, and 66 percent less than 1,000 GRT. This

fleet is maintained by (1) Norwegian ships requisitioned by the enemy, (2) Norwegian vessels operated by the Norwegian Shipping Directorate, and (3) Axis-controlled vessels allocated to the trade. Some ships of 1,000–4,000 GRT operated in overseas trade take on new cargo at Norwegian ports and continue up the coast.

Coastal traffic consists largely of native raw materials shipped to domestic processing centers, finished products from these centers shipped to areas of consumption in Norway; locally produced food-stuffs, provisions such as fish and timber destined for the Norwegian civilian population; and overland priority supplies sent overland from Oslo to Trondheim for shipment further north by sea.

(c) *Short-distance distributive shipping.*—Around each large port there is a network of distributive services. The volume of this traffic is greatest at Oslofjord, Trondheim, and Tromsø. Almost all ships engaged in it are under 1,000 GRT and most of them are under 500 GRT.

Before the war Norway was well provided with vessels of this type, which were used to carry passengers and freight to small Norwegian ports, especially those up fjords and on offlying islands. But because of the use of large numbers of them as escort vessels, minesweepers, and harbor and patrol craft, there is now a severe shortage.

To meet this situation Germany has (a) resorted to a large-scale use of fishing vessels for short-distance supply duties and (b) the transfer of small coasters and a considerable number of specially constructed barges from other countries, notably Belgium and Holland, to Norwegian waters.

There is no information as to the total number of vessels of this type available, but it is known that the Speer organization (The Ministry of Armament and War Production) controls over 200 vessels in Norway, few of which are over 500 GRT. The *Wehrmacht* also operates over 400 fishing vessels and other small craft to carry troops and military supplies to remote outposts. The majority of these craft are between Narvik and Kirkenes.

(2) *Sweden and the Baltic.*—Iron ore shipments from Sweden form the most important part of Germany's Baltic traffic. Indeed it has been pointed out that for the German iron and steel industries the Baltic has an importance not unlike that of the Great Lakes to the iron and steel industry of the United States.

Estimates for 1943 indicated that this traffic would amount to 8,500,000 metric tons, but it is believed that actual deliveries exceeded 10,000,000 tons. That this was above normal is indicated by the fact that the new German-Swedish trade agreement provides for the shipment of only 7,000,000 metric tons of ore in 1944.

The large shipments in 1943 were in part because of an early

spring which permitted the resumption of full-scale shipping activity in the Baltic 2 months earlier than usual. Ore imports during the first 6 months were at least 30 percent above those in a corresponding period in 1942. In the last 6 months, however, the traffic was less than in the corresponding period in 1942. This reduction was caused by lack of ore at the Swedish ports because of difficulties in rail transport between the mines and the ports, and by congestion at the German ports of discharge caused by bombing.

Information is not available as to the amount of this ore moved in German bottoms, but it was certainly less than half, for at least 50 percent is believed to have been shipped on Swedish vessels. Figures are not available for the distribution by flag of Baltic ship movement in 1943, but November entrances and clearances from Swedish ports give some indication of German participation. The total figure was about 750,000 net tons entered and the same amount cleared, of which 52.1 percent were Swedish, 24.9 Danish, 18.1 German, and 4.9 other flags.

Other important Baltic traffic included timber (est. 713,000 metric tons), pulp and paper (est. 526,000 metric tons) and steel (est. 73,000 metric tons) from Sweden; timber (est. 747,000 metric tons) and pulp and paper (est. 155,000 metric tons) from Finland; and oil shipped from Germany to Finland, Lithuania, and Latvia.

Recently there have been shipments of coal and coke from Stettin to Hamburg via the Kiel Canal, shipments of cement from Danzig to Danish ports and shipment of grain from Danzig to Rostock, Lübeck, Hamburg, and Bremen. There was also considerable traffic in coal, gravel, bricks, and peat between various Danish ports.

c. North Sea, Strait of Dover, English Channel.—In view of the limited amount of tonnage allocated to this area (see 2, b below) it is evident that German shipping traffic in the English Channel and the Straits of Dover is relatively small. Activity is somewhat higher in the North Sea. Estimated shipping tonnage required in 1943 for coastal traffic in Germany, Denmark, and Holland was 350,000 GRT of passenger/cargo vessels and 10,000 GRT of tankers but this included tonnage used in the Baltic as well as the North Sea.

An examination of photo-interpretation reports made in 1943 shows that most vessels operating out of French ports in this area were naval craft such as minesweepers, auxiliary trawlers, etc. However, occasional cargo craft—mainly small coasters—have been observed, indicating that some trade is still being carried on.

Until 1943 the traffic into and out of Rotterdam was very heavy. In 1942 total cargo handled was 7,000,000 metric tons. In 1943 this may have dropped 3,000,000 tons.

Most of the cargo moved was Swedish iron ore, a considerable part

of which has been handled by Swedish vessels, but obviously there has been some movement of German and German-controlled vessels. In this connection, it is reported that in 1941 two convoys a day left Rotterdam for Cuxhaven but in 1943 this was reduced to one convoy a day. Convoys numbered from five to eight vessels.

There was considerable traffic between Scandinavia and Delfzijl (Netherlands). Imports, largely lumber and its byproducts, en route to Switzerland and Italy totalled 250,000 tons. Exports, chiefly coal and coke, totalled 700,000 tons. At least some part of this traffic was carried on German vessels.

d. Bay of Biscay.

(1) *Spain and Portugal.*—In general, Germany has depended on three major routes for seaborne trade from the west coast of the Iberian Peninsula: (1) Bilbao to Bayonne and Bordeaux (principally iron ore); (2) Gijon to Bayonne (fluorspar); (3) Leixoes, Oporto, Bilbao to Bayonne.

(a) *Bilbao traffic.*—Because of difficulties in Spanish/German clearing, the iron ore trade was virtually at a standstill during the period from July through October 1943. After lengthy negotiations the Spanish government began issuing export licenses to the Germans, and by November shipments became fairly heavy again. Loadings then were 25,000 tons. In December over 40,000 tons were moved. It is clear that Germany attaches considerable importance to the acquisition of these ores and, in view of the limitations in the 1944 deliveries of Swedish ores, the rate of shipments may reach the level of 60,000 tons attained last March. Even at that, annual shipments (720,000 tons) would be little more than 10 percent of those from Sweden.

This iron ore traffic from Bilbao has recently been carried largely on 8 German vessels of about 17,000 total GRT. Three of these vessels were of more than 3,000 GRT. These larger vessels usually proceed to Bordeaux for unloading, being too large for Bayonne.

(b) *Gijon traffic.*—Shipments from Gijon were largely fluorspar, which was carried on small Dutch and French freighters under German control. In December 1943 these vessels were recalled to Bordeaux for military reasons. Between 4 September and 9 October four shipments totalling 1,321 tons were carried by a German freighter. If these shipments could be maintained for a year, between 15,000 and 16,000 tons, or one-third of German Europe's fluorspar deficit, could be carried by this one vessel.

(c) *Traffic with Portugal.*—Wartime trade with Portugal has been largely in general cargo, but since it was apparently carried by Portuguese vessels, it does not form part of a study of the German merchant marine.

(2) *Blockade running*.—To bring in certain critical materials such as tin, quinine, opium, rubber, and tungsten, Germany carried on an important, if limited, blockade-running trade with the Far East. Out-bound ships carried mercury, special steels, machine tools, etc., to Japan. The ships engaged in this trade entered and cleared from Bay of Biscay ports.

Complete figures are not available, but the following cargo is believed to have been run through the blockade between April 1943 and January 1944:

Received:	Tons
Rubber	4,000–5,000
Tin.....	Up to 3,000
Vegetable oil, quinine, etc.....	Up to 1,200

Cargo lost in the same period is estimated to have been 14,000 to 16,000 tons of rubber, up to 1,000 tons of tungsten, 9,000 to 12,000 tons of tin, and up to 4,000 tons of miscellaneous products.

The trade was largely carried on by modern Italian and German freighters of 6,000 to 8,000 tons with speeds ranging from 13 to 15 knots. It is estimated that only one out of 8 inward-bound blockade runners succeeded in reaching European ports in 1943.

In January 1944 there were about a dozen blockade runners in French Atlantic ports. Three were reported to be loaded and ready to sail just about the time that incoming blockade runners from the Far East were intercepted. About a month later the following boats were reported ready:

Vessel	GRT	Port
Elsa Essberger.....	6, 103	Bordeaux (Bassans N.).
Tannenfels.....	7, 840	Pauillac.
Fusijama.....	6, 244	Bordeaux.
Himalaya.....	6, 240	Brest.

A limited number of submarines, mainly Italian, with capacities of from 100 to 150 tons were also engaged in this trade.

The importance of blockade running is indicated by the recent German practice of sending out destroyers to escort these vessels through the Bay of Biscay. In 1941 and 1942 this trade was able to supply Germany and Japan with critical products, but with the extension of air patrols and the acquisition of new bases by the Allies it became more and more difficult, and in 1943 failed by a large margin to meet requirements.

e. Mediterranean and Black Sea.

(1) *Mediterranean area*.—Since the capitulation of Italy and the capture of Sardinia, Sicily, and Corsica the shipping situation in the

Mediterranean has changed fundamentally. Previously there was some traffic between Spain and Axis ports but this has now virtually ceased.

The Mediterranean is now divided into three sectors, the Western Mediterranean, the Adriatic, and Aegean. German-controlled vessels operate to some extent in each sector, but cannot pass from one sector to another.

(a) *Western Mediterranean*.—In November 1943 it was reported that most military traffic is now carried on by barges and other special craft. During that month 25,000 GRT of cargo vessels and 30,000 GRT of tankers were moved from Genoa to Marseille and adjacent ports, where they would be less vulnerable.

(b) *Adriatic*.—German garrisons on the coast of Yugoslavia are now largely supplied by sea. The main route is from Pola to Zara and thence to Sibenik and Split, but some traffic originates at Fiume and Trieste. Coasters and motor vessels of up to 5,000 GRT are used for traffic from the main ports to as far south as Sibenik, and schooners for the local and island trade. A few Siebel ferries are also used. There is no information as to the cargo tonnage handled by these services.

German garrisons in Albania are supplied by light shipping based on Durazzo, Valona, and Santi Quaranta.

(c) *Aegean*.—German-controlled tonnage in the Aegean is limited, and small craft, caiques, and Seibel ferries are being used more and more to supply German garrisons. There is now considerable use of Salonika as a port.

(2) *Black Sea*.—In recent months the principal German traffic in the Black Sea has been the carriage of German supplies from the Danube transshipment ports (Galati, Sulina, Braila, Constanta, and Burgas) to south Russian ports such as Odessa, Nikolave, and Sevastopol.

In 1943, 19,000 tons of chrome ore were shipped from Turkey to Bulgaria in small motor caiques.

There is also believed to be some traffic, principally in coal, between the Black Sea and Salonika.

f. Summary.—Summing up, the wartime function of the German merchant marine seems to be: (1) to supply certain critical German war needs—viz, the iron trade with Sweden and Spain and the blockade-running trade with Japan; (2) to carry military supplies to German armies; (3) to carry on a coastal trade, thus supplementing other heavily burdened transportation systems.

2. Estimated Size of the German Merchant Marine.

a. Total tonnage.—Because the latest available figures for German and German-controlled tonnage are for a different date in each area,

it is not possible to make more than an approximate estimate of the present size of the German fleet. However, it is believed that Germany now owns or controls at least 6,000,000 GRT of merchant shipping. The ratio of German to German-controlled shipping in the Mediterranean and Black Sea is not known, although it can be assumed that there is relatively little German-owned tonnage in this area. In the Bay of Biscay ports and north of Dover at least 3,300,000 GRT are German-owned.

b. North of the Strait of Dover.—An estimate of September 1943 puts the German and German-controlled tonnage north of the Strait of Dover at 4,866,000 GRT. An estimate of December 1943 puts the tonnage in this area at 4,277,000 GRT but this estimate includes only ships of 1,000 GRT or more.

It is estimated that shipping requirements in this area are 2,766,000 GRT and that after making allowances for vessels laid up, under repair or put to military or naval uses, there is a shortage of 383,000 GRT. The details on which these estimates are based are given in annex P.

A break-down by tonnage type and by type of fuel burned for German-owned and German-controlled ships north of Dover is given in annex Q.

c. French Channel and Atlantic Ports.—An estimate of February 1944 puts the dry cargo tonnage in this area at 293,000 GRT of which 43,000 GRT can be considered as potential transfers to reinforce the fleet in northern waters. The type of the vessels in this area is given below:

	Serviceable ¹	Immobilized ¹	Total
	GRT	GRT	GRT
Cargo and passenger cargo-----	43, 000	118, 000	161, 000
Large passenger vessels-----		32, 000	32, 000
Fishing craft-----	53, 000	12, 000	65, 000
Trading with Spanish ports-----	16, 000		16, 000
In refuge in Spanish and Portuguese ports---	2, 000	17, 000	19, 000
	114, 000	179, 000	293, 000

¹ Vessels which could be brought into service in approximately 6 weeks are regarded as serviceable. Vessels which have made no movement for a considerable time are considered immobilized.

No further break-down of the above estimate is available, but detailed estimates as of September 1943 are shown in annex R. Both German and French vessels are shown. Also shown is estimated tanker tonnage in this area as of September 1943. It is approximately 111,719 GRT.

d. Mediterranean Area.—Tonnage estimates in this area are subject to a wide margin of error because numerous unidentified losses,

and estimates from different sources vary considerably. A compilation of Axis-controlled vessels in this area as of January 1944 is as follows:⁵

	Cargo/Pass	Tankers—	Total
	<i>GRT</i>	<i>GRT</i>	<i>GRT</i>
Italian vessels.....	400, 782	29, 853	430, 635
Other Axis-controlled.....	522, 910	103, 292	626, 202
Total.....	923, 692	133, 145	1, 056, 837

It can be assumed to be reasonably accurate.

e. Black Sea.—Losses suffered by the enemy from Russian attacks are not known and estimates for this area are very approximate. It is believed, however, that as of November 1943 the enemy's shipping resources in this area amounted to only 35,000 GRT.

3. Maintenance and Operation.

a. Building and repair under war conditions.

(1) New construction.

(a) 1941-43.—Following the outbreak of war, precedence was given in all adequate yards to naval construction and in particular to U-boat construction. Merchant ships were launched as quickly as possible in order to clear the slips. Ships were only completed when their delivery to neutral countries was likely to bring in useful for-

⁵ British estimates of enemy-controlled tonnage in the Mediterranean as of November 1943 are:

ACTIVE TONNAGE

	Nontanker	Tanker	Total
	<i>GRT</i>	<i>GRT</i>	<i>GRT</i>
Aegean.....	69, 000	13, 000	82, 000
Adriatic.....	46, 000	15, 000	61, 000
Western Mediterranean.....	168, 000	65, 000	233, 000
Total.....	283, 000	93, 000	376, 000

DAMAGED SHIPS

Aegean.....	8, 000		8, 000
Adriatic.....	69, 000	60, 000	129, 000
Western Mediterranean.....	205, 000	65, 000	270, 000
Total.....	282, 000	125, 000	407, 000

NAVAL REQUISITIONS

Aegean.....	2, 000		2, 000
Adriatic.....	14, 000		14, 000
Western Mediterranean.....	148, 000		148, 000
Total.....	164, 000		164, 000
Grand total.....	729, 000	218, 000	947, 000

eign exchange, and many ships, including some on foreign account, were laid aside incomplete, or even dismantled when the slip space was urgently required for other purposes. The switchover to a full submarine program took the best part of a year.

Very little information is available regarding merchant ship construction before early 1941, when an aerial survey of the principal western ports showed only three vessels of any size on the building slips of the main German yards, and about 9 coasters and 17 small unclassified craft on the stocks at lesser yards. At the same time 6 large merchant vessels were seen to be in the fitting-out stage, but little or no work was being done on 3 of them. During 1941 the only dry-cargo vessels completed were small coasters, but 1 large tanker was launched in June 1941 in Hamburg. Little progress was observed on the several merchant vessels and coasters which were still in the building or fitting-out stage towards the end of 1941.

A revival in German merchant shipbuilding began toward the second half of 1942 when Germany's shipping losses in medium cargo-carrying tonnage began to create serious problems. First, Germany began to finish some of the hulls which had been laid up uncompleted in various ports and yards; at the end of 1942 there were 22 such hulls, including the 10,000-ton tanker mentioned above.

The first German merchant ship laid down in at least 2 years was begun in June 1942 and in the period from November 1942 to April 1943, 10 further keels were laid. They were for vessels of 3,000 GRT. In the following 6 months the keels of 13 new merchant ships were laid. This was the commencement of the 1943-45 "Hansa" merchant shipbuilding program described below.

(b) *The Hansa program.*—The so-called "Hansa" program was initiated in the spring of 1943 and is an emergency 3-year plan for the rapid construction of about 195 cargo ships (total tonnage 715,000 GRT). Among them were 140 of 3,000 GRT, 50 of 5,000 GRT, and 5 of 9,000 GRT. By far the greatest part of the orders were placed with Dutch shipyards, but some were placed in Denmark and Belgium. The share of German shipbuilding was to be 20 vessels of 3,000 GRT, and 2 of 5,000 GRT, but this quota was soon increased.

The program is said to be in charge of the *Schiffahrtstreuhand Gesellschaft* (possibly a holding company for shipbuilding interests), with some supervision by the Main Committee for Shipbuilding (*Hauptausschuss Schiffbau*) (see 4, a, i below). In each country involved one company has been made responsible for centralization of work and output. Few particulars are available as to allocation of orders for engines, boilers, auxiliary machinery, etc. In Holland a large number of firms apparently will participate, among them the Werkspoor & Netherlands Drydock Company. In Belgium the work

seems to have been allocated to the Ste. Anon. John Cockerill. Various parts and accessories, thrust blocks, propellers, deck machinery, electrical installations, etc., have been assigned to several German companies.

The Reich Commissioner of Ocean Shipping (see 4a below) had power to assign priorities for shipbuilding work and to speed up turn-round and repairs. These powers later were transferred to the Ministry of Armament and War Production.

In the 5 months ending 30 April 1943 10 merchant vessels of standard 3,000-ton design were laid down. By December 1943, 3 had been commissioned and 4 had reached the fitting-out stage. Since May 1943 work has been started on 14 more hulls of the 3,000-ton design. At the present time 21 hulls totalling some 63,000 GRT are in varying stages of construction. However, commissionings in German yards during the first 6 months of 1944 are unlikely to exceed 30,000 GRT.

That the program is being intensified is shown by the fact that the number of shipyards allocated to it has been increased from 7 to 10. However, work on ships commenced before the program was initiated has been more slow. Only 2 vessels (with an aggregate tonnage of 9,000 GRT) laid down before 1940 were completed. There still remain some 76,000 GRT on which work is more or less suspended. The following table shows the merchant ships completed between 1 November 1941 and 1 November 1943.

Table 6. Merchant ships completed between 1 Nov. 1941 and 1 Nov. 1943

	1 Nov. 1941 to 1 Nov. 1942		1 Nov. 1942 to 1 Nov. 1943	
	<i>Number</i> 4 or 5	<i>GRT</i> 20, 000	<i>Number</i> 6	<i>GRT</i> 23, 500
Merchant ships of 200 feet length and over	4	2, 500	3	19, 500
Tankers and oil barges	1	2, 500		
Dredgers	1	800		
Coasters				
Salvage craft			2	5, 000
Trawlers	8	5, 000	3	2, 000
Floating docks	19	(?)	5	24, 000 (displacement)

It will be seen that a large number of floating docks have been built in Germany since 1941, but construction of this sort was being suspended by the end of 1943. A further item of interest is the large number of armed drifters, 80 feet long, built near Swinemünde in a yard specially constructed for this purpose; the total completed by November 1943 was upwards of 100. Certain vessels, originally laid down as merchant ships, have been fitted out as "Sperrbrecher" (convoy escorts) and are thus not included above.

(c) *In occupied territory.*—Aerial reconnaissance reports indicate increased activity on merchant ship construction in occupied countries, but it is often difficult to distinguish between Hansa and pre-Hansa building activities. Between August 1942 and the end of 1943, 52 vessels of approximately 167,000 GRT were laid down; 37 of 168,000 GRT most of which were laid down in 1939 or 1940, have been commissioned. Commissionings during the next 6 months may reach 100,000 GRT. Delay in completion is usually caused by the nondelivery of materials.

Such Dutch yards as have not been destroyed by bombing are very busy. The total construction on Dutch slips may now be 40 ships of 200 feet or more. Danish yards are building principally medium and large merchant vessels and tankers; their rate of progress has improved. Twenty-one ships have been observed on slips. The Norwegian yards are building chiefly whalers, coasters, and tugs. An increased number of these has been laid down, launched, and completed; 36 vessels are on the slips as compared to 32 in September 1943. A new development in Norway has been the building of concrete barges at Larvik and Bergen—22 of these were seen recently building and fitting out. The rate of work in French shipyards has been very slow and no large units have been completed or laid down.

(d) *Summary.*—One of the main difficulties in carrying out the shipbuilding program of the Reich is a shortage of manpower and material. For this reason it is unlikely that new construction will be able to replace losses.

Before the war, German shipyards could build any type of ship from fishing boats to the largest passenger liner, as well as miscellaneous equipment such as floating docks, floating cranes, dockgates, etc. Though at present largely converted to U-boat construction, those not destroyed or seriously damaged could resume their peacetime function whenever necessary. Most of them have extensive machine shops and can build and repair marine engines and auxiliary machinery. The table given in annex S shows the principal shipyards in Germany, with details of facilities (slips, lengths, etc.) and the class and size of ships (naval or mercantile) which can be built on them.

(2) *Repair and maintenance.*—In wartime repair work constitutes a very large proportion of shipyard activity. Tonnage figures alone are a poor criterion of the amount of work involved, as the extent of damage suffered by a vessel will vary enormously from smashed deck-house doors to the replacement of an entire bow or stern. In 1943 the average tonnage of merchant shipping lying at German shipyards for repair purposes at any one time is estimated to have been 160,000 GRT. Although there has been a tendency for some yards to specialize on repair work, most yards that can build ships can repair them.

b. Supplies and Fuel.

(1) *Construction materials*.—Because of shortages the Germans have been forced to lower many of their standards for materials used for shipbuilding. There have been frequent shortages, if only local or temporary, of steel (plates, angles, etc.) for ordinary mercantile building. This is apparently linked with the overriding demands for naval construction and repairs, and with the enemy's difficulties in producing sufficient open-hearth steel for all requirements. In a decree of November 1942 the shipbuilding industry was specified as one of a number of large steel consumers who were to be compelled to use basic Bessemer (Thomas) steel instead of open-hearth (Martin) or electric grades for normal commercial purposes. Similar limitations have been imposed on the use of brass, copper, and other non-ferrous metals wherever they can conveniently be replaced by steel or aluminum. A particular instance is the lack of tin and copper for bearing metals; according to reports the substitution of steel and lead has been unsatisfactory and the difficulty has been aggravated by the poor quality of lubricants.

(2) *Fuel*.—At the outbreak of war, the percentage of coal-burners, oil-burners, and Diesel-engined vessels in the German merchant marine was as follows:

Type:	Percent
Coal burning-----	54.6
Oil burning-----	19.1
Diesel engine-----	26.3

In December 1942 the percentage was estimated to be:

Type:	Percent
Coal burning-----	71.8
Oil burning-----	7.0
Diesel engine-----	21.2

This change may be partly due to the acquisition of tonnage from the merchant marines of occupied nations, but it was also because of the conversion of oil burners and Diesel-engined craft to coal. The shortage of oil—particularly Diesel oil—was so acute that by the middle of 1942 approximately 600,000 GRT of useful tonnage were laid up. The German Reich Commissioner for Ocean Shipping also issued several public appeals to all owners of ocean-going and coastal vessels, requesting them to supply the necessary data regarding the conversion of these craft to gas operation. Not included in these appeals were fishing vessels and ocean-going and coastal ships of under 50 and over 1,000 horsepower.

c. Manpower.

(1) *Source of supply*.—There is a serious shortage of ship's officers and skilled seamen of all kinds in the Axis merchant service. This

shortage is attributed chiefly to the calling up of seamen of between 18 and 50 years of age for both the Navy and the Army, with the result that German crews are now largely composed of overage and underage men. There is also a shortage of merchant seamen in the occupied countries caused largely by the reluctance of seamen to serve the Axis, which leads to desertions, and by the fact that a large number of seamen are now serving with the United Nations.

Germany has tried to make up for this shortage by the compulsory enrollment of merchant seamen from the occupied countries, by lowering the standards for ship's officers, by the recruitment of unskilled labor, and by sending out ships short-handed.

Compulsory enrollment is in effect in Norway and Holland, where seamen engaged in other work are compelled to go to sea again; if they refuse, they are subject to deportation and forced labor in Germany. Enrollment is also believed to be in effect in Belgium and the Baltic States, and was recently reported to have been introduced in Denmark and France.

The most serious shortage is of officers, but the shortage of deck and engine hands has forced the Germans to make increasing use of unskilled labor. A German ship of 9,000 GRT sailed recently with a crew of 16, as compared with 34 on a Swedish ship of similar tonnage and type. In another ship the stokehold complement consisted of two stokers instead of three stokers and two trimmers.

(2) *Training and Standards.*

Insofar as is known, the training program is as outlined in A, 3, d, iii above, but the various courses are now completed in much shorter time. This program is believed to have been completely put into effect by 1940.

However, due to the difficulty of obtaining sufficient personnel (see above) the standards and quality of both officers and men have been considerably lowered.

(3) *Wages and contracts.*

(a) *Wages.*—On the whole, wages have changed very little during the war. War bonuses and danger money are paid to seamen. War bonuses vary according to where the ship is going. They are 20.00 to 40.00 RM. a month. Danger money is 1.25 RM. a day (July 1943). By order of the Reich Commissioner for Ocean Shipping, the Hapag Line in Hamburg now acts as agent for all companies in paying their personnel. The other companies send their money to Hapag, which pays the men on behalf of the Reich Commissioner of Ocean Shipping.

(b) *Contracts.*—The normal contract under which a merchant seaman was employed (i. e., signing on for a round trip) has been abolished; men are now bound to a particular ship. They can be released only by serious illness and the necessary medical certificate is extremely

hard to obtain. Deserters are liable to severe punishment. Moreover, under a regulation dated 1 September 1942, seamen are obliged not only to assist loading and discharging their own ship, but any other ship in the same port, if work is delayed through a shortage of dock labor. However, shortly after this regulation went into effect, the Reich Commissioner of Ocean Shipping announced improvements in wages and conditions of employment. Wages were increased, better food and clothing were promised, and the rates of compensation for killed or injured seamen were made the same as those for sailors in the German Navy.

Seamen from occupied countries receive less favorable treatment aboard German ships than do German nationals. Even when their conditions are nominally the same, discrimination is officially or unofficially practiced. Because of the dissatisfaction this causes there is now a tendency to use fewer mixed crews on German ships and to employ more crews composed either wholly of Germans or of foreigners. In the latter case, however, the master, the wireless operator, and usually the chief officer are German.

(4) *Relations with the Nazi Party*.—In a special chapter of the 1937 edition of a handbook on navigation (*Schiffsführung*), the relation between the Nazi party and the German merchant seaman is set forth as follows:

It is a duty and it is also of paramount importance, that the commanders of all German ships work in closest contact with the Party organization and the offices of the Party and its members on board ship and in the various seaports. All sailors sailing the seas are subject to the following Party organizations:

- (1) Foreign organization of the NSDAP, Office of Navigation (*Auslands-Organisation der NSDAP, Amt Seefahrt*);
- (2) Foreign organization of the German Labor Front (*Deutsche Arbeitsfront, Auslands-Organisation*) in cooperation with the Reich group Navigation (*Reichsfachgruppe Seeschifffahrt*) of the department of Energy Traffic, Administration (*EnergieVerkehr-Verwaltung*);
- (3) National-Socialist unions belonging to the Party's foreign organization (*National Sozialistischer Verband in der Auslandsorganisation*) of which each sailor is supposed to be a member.
- (4) Winter Aid organization (WHW—*Winterhilfswerk*), which each seaman is obliged to support. (One dish meal and money contribution.)

The dues payable by all seamen to the German Labor Front (*Deutsche Arbeitsfront*) are frequently collected by the commanders of the ships. These dues are not to be considered as insurance premiums but represent contributions to a common philosophy of life (*Beiträge zu einer weltanschaulichen Gemeinschaft*).

The Party office *Schonheit der Arbeit* (Beauty of Work) is responsible for seeing to it that decent living quarters are provided for the crews.

Since this handbook is being sent to German prisoners of war, its provisions are presumed still to be in effect.

4. Changes in Organization.

a. *The Reich and German Shipping.*

(1) *General situation.*—During the first 2 years of the war, the administration and organization of German shipping were relatively unchanged. Uniform planning of sea transport, joint management of shipping, complete control of cargo, and complete control of the position of all ships were in the hands of a committee of shipowners presumably representing the Association of Shipowners. At most these powers were an extension and streamlining of those possessed by the Association before the war.

At the same time a naval officer was designated as Under-Secretary of State in charge of a newly created Central Agency for Ocean Shipping (*Zentrales Seeschiffamt*) in the Ministry of Transport. The function of this agency was to coordinate the interests of shipping with other related interests in the Ministry (i. e., seaports, ship canals, inland navigation).

However, shipping problems still continued to prove difficult of solution and the shipping situation somewhat chaotic. For one thing, shipowners continued to use competitive methods and to further their own individual needs, which were not always consistent with the war-time needs of the Third Reich. Furthermore the interests of the German merchant marine had little or no representation in the higher administrative agencies concerned with the problems of the war.

To correct this situation recourse was had to an expedient which had been tried successfully before: namely, to appoint a commissioner responsible only to Hitler and with extradepartmental powers.

In July 1942 a Reich Commissariat for Ocean Shipping (*Reichskommissariat für die Seeschifffahrt*) was set up. Karl Kaufman, the Gauleiter of Hamburg, was appointed commissioner. He was given virtually complete control over shipping and shipbuilding. The shipping committee (see above) theoretically continued in its functions, but was under the direct supervision of Kaufmann. From the Nazi point of view, the appointment was considered to be a good one since in addition to being a reliable official of the Party, he was well connected in shipping circles.

(2) *The Kaufmann organization.*—As originally constituted the Kaufmann organization was divided into five parts (see chart 6). They were the maritime departments in Germany, the maritime departments in Norway, the maritime departments in the Mediterranean, the port commissioners and port inspectors, and the war-damage office for ocean shipping.

The maritime departments in Germany were as follows:

- General organization;
- Traffic planning;

Overseas shipping;
Coastal and fjord shipping;
Ports;
Shipbuilding (later transferred to the Ministry of Armament
and War Production);
Equipment.

It is believed that the Norwegian and Mediterranean maritime offices are organized along similar lines. They are discussed in section b immediately below.

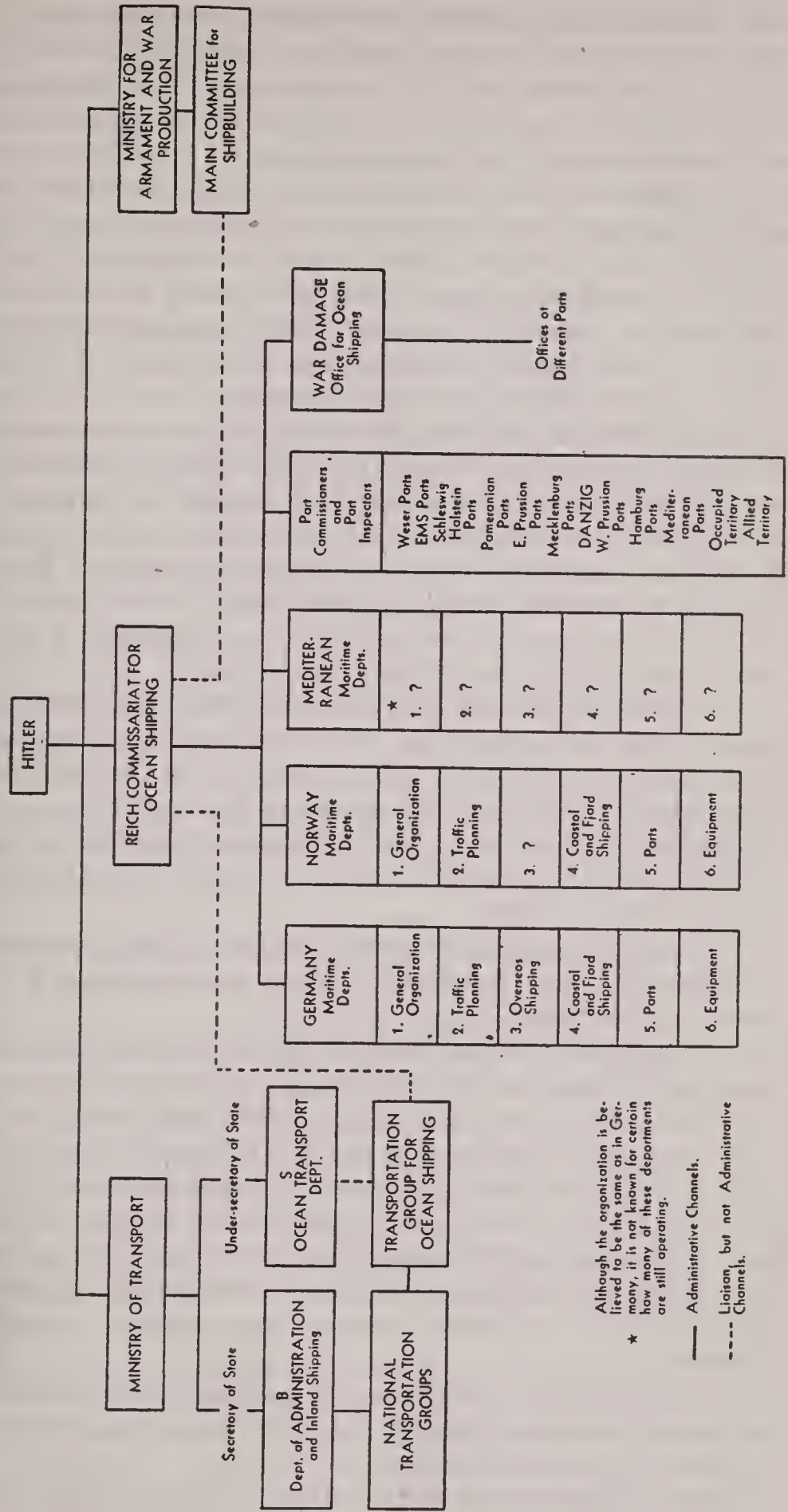
A port commissioner was appointed for each of the following port groups; the Weser ports, the Ems ports, the Schleswig-Holstein ports, the Pomeranian ports, the East Prussian ports, the Mecklenburg ports, Danzig and the West Prussian ports, the Hamburg ports. Port inspectors were stationed in the principal ports in occupied and Axis-dominated territories. In general, the port commissioners and inspectors are responsible for shipping rather than ports. It is their function to see that the most efficient use is made of available vessels.

The war-damage office (*Kriegsschädenamt für die Seeschifffahrt*) set up in December 1942 is believed to be responsible for insurance against war damage, but precise information is not available.

The Kaufmann organization immediately devoted itself to the solution of Germany's more pressing shipping problems. Freight rates and pay were raised and working conditions were improved. Stringent measures to secure the most efficient operation of available tonnage were adopted. The small hitherto untouched reserves of deep-sea shipping were utilized. In an endeavor to achieve the more rapid working of deep-sea tonnage, small craft of all kinds were pressed into coastwise and distributive services, particularly on the Norwegian coast (see 1, b, i (3) above). Port turn-round times were improved by moving equipment from port to port to meet changing requirements. Existing port labor was reinforced by foreign workers and prisoners of war and in some cases even by the crews of available ships.

The net effect of this was a great improvement in Germany's shipping position, but it also seems true that the Kaufmann organization came into conflict with other German war administrations and that steps may have been taken to limit its powers. It is known that the responsibility for shipbuilding and repairs in May 1943 was vested in the Main Committee for Shipbuilding (Hauptausschuss Schiffbau) under the jurisdiction of the Reich Ministry of Armament and War Production (The Speer Organization—see chart 6). It is also possible—though direct evidence is lacking—that the whole Reich Commissariat for Ocean Shipping is now subject to the jurisdiction of this ministry.

Chart 6--ADMINISTRATION ORGANIZATION OF OCEAN SHIPPING IN 1944



★ Although the organization is believed to be the same as in Germany, it is not known for certain how many of these departments are still operating.

— Administrative Channels.
- - - Liaison, but not Administrative Channels.

b. Shipping Administration in Occupied Countries.—At the beginning of the war shipping in the occupied territories was administered by the armed forces, which, as a rule, not only overestimated their own individual requirements, but made little attempt to coordinate their various needs. As a result unnecessarily large blocks of tonnage were requisitioned and withheld from the commercial pool, and commercial services to these territories were extravagantly administered. This same lack of central planning was also evident in the fact that although Germany's tonnage strength was being progressively whittled away, no attempt was made either to speed up the return to service of the growing accumulation of damaged shipping or to initiate even a token replacement program.

Toward the end of 1942, Kaufmann began a reorganization of shipping in occupied countries. He first turned his attention to Norway, which for reasons of strategy and supply was making the largest drain on Germany's existing tonnage resources. Here no less than five separate organizations were competing for tonnage. Kaufmann's first step was to take over the KMD (*Kriegs Marine Dienst*), which had hitherto been maintained by the German Admiralty for the transport of supplies for the German armed forces. In February 1943 he set up a Norwegian Division of the Reichs Commissariat for Shipping (known as the RK-See). Representatives were installed in all important ports and were made responsible for the handling of all cargo vessels including those operating for the *Wehrmacht*. The organization of this office is similar to that of the office in Germany. The following are the notable examples of the work of this organization in its various fields:

(1) *General organization*—centralization of ship management on the Norwegian coast resulting in faster turn-rounds and increased imports and exports;

(2) *Traffic planning*—quick planning to meet special needs, illustrated in the speed at which full-scale ore shipments were resumed from Lulea when that port opened earlier than usual; compulsory ballast voyages for fast vessels engaged in priority trade;

(3) *Coastal and fjord shipping*—continued mobilization of small craft on the Norwegian coast and elsewhere for distributive and coast-wise services with a view to reducing the call on deep-sea shipping;

(4) *Ports and equipment*—numerous movements of general and special quayside appliances between ports to meet changing port activities;

(5) *Shipbuilding*—resumption of merchant ship construction in the German yards and the laying down in the autumn of 1942 of the first hulls of a standard design.

In April 1943 steps of a like nature were taken in the Mediter-

anean and RK-See took over all German and German-controlled tonnage in the Mediterranean. It was formerly under the jurisdiction of OKM (*Oberste Kriegs Marine*). As far as is known the organization was similar to Norway.

c. Wartime Changes in Steamship Lines.—Reports received in January 1943 state that the North German Lloyd and the Hamburg-America lines have been amalgamated to form the new German American Line.

It is also known that in 1941 the Reich transferred to private owners (especially the Essberger line) the stock which it held in some of the most important ocean shipping lines.

No other changes of any importance have been reported.

d. Administration of Shipbuilding.—As pointed out above (4 a, i, (2)) control of shipbuilding was placed in the hands of the Kaufmann organization, but was later transferred to the Main Committee for Shipbuilding. All shipyards were under the control of this committee and no new construction or repairs could be undertaken without its permission. This regulation applied both to Germany and to occupied countries.

C. The German Merchant Marine at the End of the War.

Any estimate as to the probable size and make-up of the German merchant marine at the end of the war must be very approximate since a great many variables have to be taken into consideration. But although shipbuilding is still being carried on both in Germany and the occupied countries, it is not likely that new tonnage is being produced any faster than old tonnage is lost or worn out. Consequently it is reasonable to assume that the total tonnage in German hands when hostilities cease will not exceed the approximately 6,000,000 GRT which she controls at the present time.

But not all of this tonnage is actually German. Excluding Italian tonnage (estimated to be 504,685 GRT) and Spanish tonnage (estimated to be 24,689 GRT) total tonnage acquired by Germany during the war was 3,307,223 GRT. Details are given in table 7.

If ton-for-ton restoration were required, the German merchant marine would be not more than 2,700,000 GRT or little more than half its size before the war. If restoration of Italian and Spanish vessels were also made, the total tonnage of the merchant marine would be not more than 2,200,000 GRT.

Furthermore, this merchant marine is almost certain to be very unbalanced in its make-up, with a great shortage of smaller ships. Estimates of the present German merchant marine with a break-down by size of vessel are not available, but it is known that of the 3,191 vessels seized from enemy countries, 2,690 were of less than 2,000 GRT.

Table 7. Tonnage seized by Germany during the war

From	Pass./Cargo		Tankers		Total	
	Number	Tonnage	Number	Tonnage	Number	Tonnage
Western Europe:						
Norway-----	983	704, 180	40	164, 495	1, 023	868, 675
Denmark-----	439	439, 477	7	17, 185	446	456, 662
Netherlands-----	674	371, 235	15	43, 111	689	414, 346
Belgium-----	87	73, 100	-----	-----	87	73, 100
France-----	380	264, 856	13	35, 315	393	300, 171
Total-----	2, 563	1, 852, 848	75	260, 106	2, 638	2, 112, 954
The Mediterranean and Black Sea:						
Greece-----	174	158, 255	6	11, 716	180	169, 971
Yugoslavia-----	96	46, 103	-----	-----	96	46, 103
France-----	200	646, 253	22	101, 339	222	747, 592
Belgium-----	1	2, 568	-----	-----	1	2, 568
Great Britain-----	14	73, 904	3	26, 038	17	99, 942
Denmark-----	14	31, 430	-----	-----	14	31, 430
Netherlands-----	3	2, 853	-----	-----	3	2, 853
Norway-----	11	29, 280	6	53, 885	17	83, 165
Russia-----	3	10, 645	-----	-----	3	10, 645
Total-----	516	1, 001, 291	37	192, 978	553	1, 194, 269
Grand total-----	3, 079	2, 854, 139	112	453, 084	3, 191	3, 307, 223

Of the 3,307,223 GRT thus acquired, 1,109,065 GRT were in vessels of this category.

Restoration would deprive Germany of a great many small ships.

Moreover, Germany has worked her smaller vessels heavily so that wear and tear and losses in this category have been proportionately great, whereas many of her larger vessels have been laid up after being carefully camouflaged and may have escaped damage.

D. Bibliography (Selected References on the German Merchant Marine).

Government and Administration: Economic Controls in Nazi Germany, *Civil Affairs Handbook*, Section 2 T. (Contains discussion of principal Reich authorities concerned with the control of transportation.)

Kittel, Theodor, and Wehrmann, W. *Das Reichsverkehrsministerium*, 1940 (Organization of the Ministry of Transport and changes effected since World War I).

Ebhardt, Bodo. *Organischer Aufbau des Verkehrs*. (Corporate structure of German transport.)

Hempen, Wilhelm. *Die Organization der Deutschen Verkehrswirtschaft*, insbesondere die Unternehmungsformen in den einzelnen Verkehrszweigen, 1937. (An analysis of the components of the transportation industry in Germany.)

Reichsverkehrsministerium. *Handbuch für die deutsche Handelsmarine für das Jahr 1937*. Later editions are not available in this country, but should be easily available in Germany. (Contains a list of all the commissions and boards attached to the Ministry of Transport.)

Reichsgesetzblatt (for laws, decrees, etc.).

Reichs Anzeiger (for ordinances and regulations amplifying laws in the *Reichsgesetzblatt*).

Statistisches Reichsamt. *Die Seeschifffahrt im Jahre 1936, 1937*, Band 508 for 1936 and Band 524 for 1937. Berlin, 1937, 1938. (Official German statistics on ocean shipping. Analysis according to commodities, ports, rail-water transshipment, regional traffic and foreign trade.)

Statistisches Reichsamt. *Statistisches Jahrbuch für das Deutsche Reich, 1938*. (General statistics on Germany for 1937.)

Searphim, Peter Heinz. *Die Ostseehafen und der Ostseeverkehr*, Volk und Reich Verlag, Berlin, 1937. (Baltic ports and their hinterland.)

Jahrbuch der Hafenbautechnischen Gesellschaft. (Contains much technical information on shipping and port installations.)

Bulletin of the Hamburg World's Economics Archives 1937-1939. (Contain much detailed information on the importance of German shipping to the economic life in Germany. Several articles deal with the building program, balance sheets of German shipping companies, business results of German yards, and shipping companies.)

Schiffbau und Werft Reederei Hafen. (An official or semiofficial magazine devoted to the interests of maritime and inland ports, shipping, and shipbuilding yards.)

Groner. *Handelsflotten Taschenbuch 1940*. (Published every year; the 1940 handbook is the last one available in this country. It contains the names of all vessels under German flag, the main ship-owners and their vessels with home port, year of building, and tonnage capacity.)

Oberkommando der Kriegsmarine, Mansen, G. V. *Nauticus, Jahrbuch für Deutschland's Seeinteressen 1936 to 1943*. (Contains several articles emphasizing the importance of the German Navy, merchant marine, and shipbuilding facilities.)

Lloyd's Register of Shipping, London. Published every year. (Contains official data on merchant vessels of the whole world.)

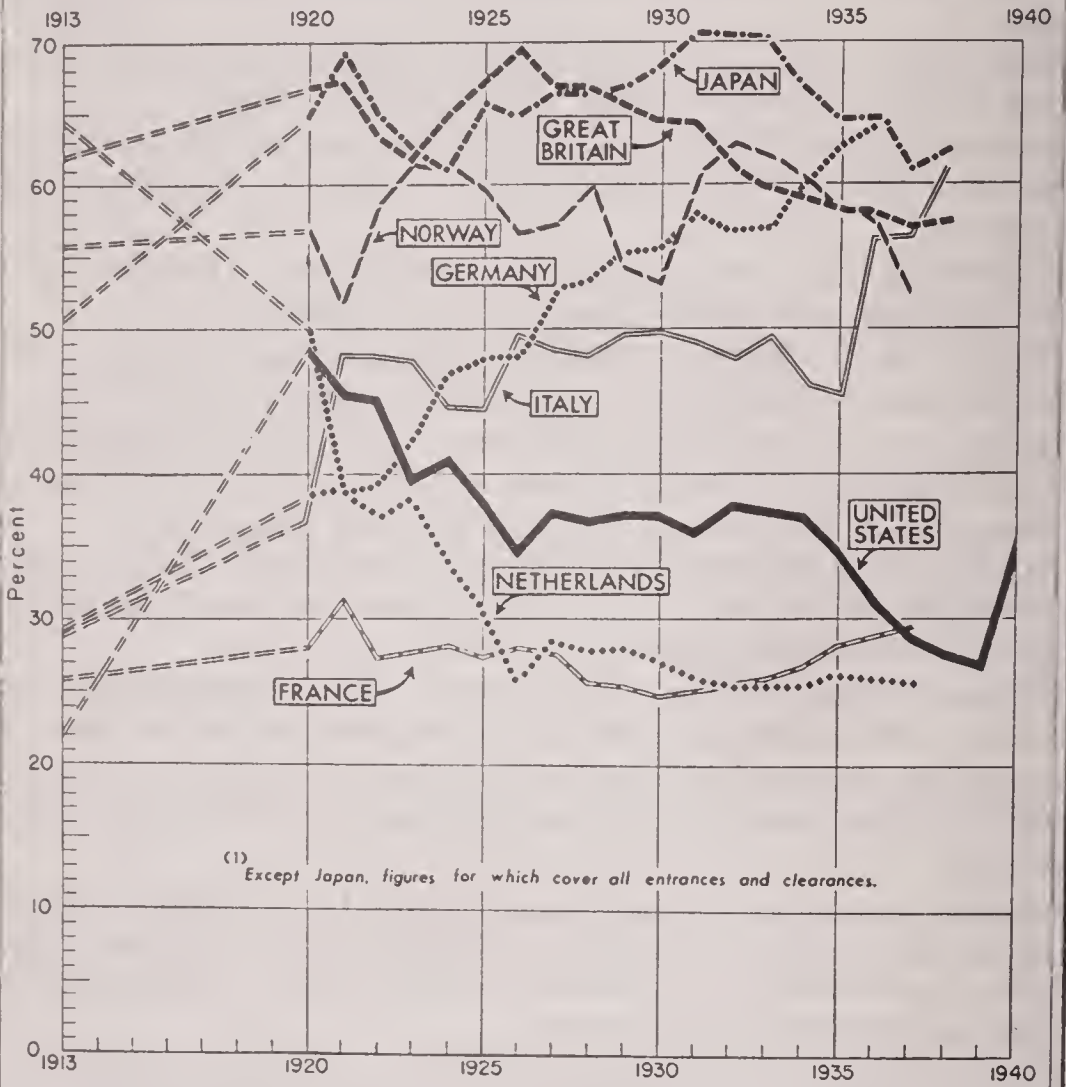
Civil Affairs Guide: *German Public Property*. (Contains discussion of the status of public property.)

Schiffahrt, Schiffbau, Hafenbau. *Deutsche Schifffahrtszeitschrift "Hansa,"* Berlin. Published weekly. (Contains much valuable material on ocean shipping, traffic, building, and also technical information.)

Annex A

World Series Chart 2

PROPORTION OF ENTRANCES & CLEARANCES OF NATIONAL VESSELS IN THE SEA TRADE OF THEIR RESPECTIVE COUNTRIES (MEASURED BY NET TONNAGE ENTERED & CLEARED WITH CARGO)⁽¹⁾



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FROM GE WORLD SERIES CHART 2 JAN. 15, 1943

Annex B. Germany, principal German steamship services before the war

Steamship line	Destination	Number of ships	Approximate G. N. T. in 1,000 T.	Type of service	Remarks
Hamburg-America-----	UNITED STATES				
	New York City-----	5	105	Weekly, passenger and freight.	Joint service with North German Lloyd.
	Gulf ports-----	5	25	Monthly, combined passenger and freight.	
	North Atlantic ports and Gulf ports.	6	30	Monthly, freight with limited passenger accommodations.	
North German Lloyd--	Pacific ports via Panama Canal.	5	37	Fortnightly, combined passenger and freight.	Also to west coast ports of Central America; joint service with North German Lloyd.
	New York City-----	3	130	Weekly, combined passenger and freight.	
	Gulf ports-----	6	30	Monthly, freight service.	Joint service with Hapag.
	North Atlantic ports and Gulf ports.	8	40	Monthly, combined passenger and freight.	
Transocean Transport--	Pacific ports via Caribbean ports, Canal Zone, west coasts of Central America and Mexico.	7	49	Fortnightly-----	
	Gulf ports-----	5	27	Monthly, combined passenger and freight.	
Urag (Unterweser Reederei A. G.).	Gulf ports (see remarks)-----	4	20	Monthly-----	Part of triangular route Germany-Norway-United States.
	CENTRAL AND CARIBBEAN AMERICA				
Hamburg-America-----	Cuba and Mexico-----	2	19	Monthly, combined passenger and freight.	

Annex B. Germany, principal German steamship services before the war—Continued

Steamship line	Destination	Number of ships	Approximate G. N. T. in 1,000 T.	Type of service	Remarks
Hamburg-America-----	CENTRAL AND CARIBBEAN AMERICA—continued				
	North coast of South America, Canal Zone, Limon, Puerto Barrios.	2	24	Monthly, combined passenger and freight.	
	Panama Canal and west coast of Central America (see remarks).	5	-----	Fortnightly, combined passenger and freight.	Ports of call en route to Pacific ports; joint service with North German Lloyd.
North German Lloyd--	Cuba and Mexico-----	4	13	Monthly, freight-----	
	Caribbean ports, Canal Zone and west coasts of Central America and Mexico (see remarks).	7	-----	Fortnightly-----	Ports of call en route to Pacific ports; joint service with Hapag.
	North coast of South America-----	4	16	Fortnightly, combined passenger and freight.	
Horn-----	Caribbean ports-----	4	12	Monthly freight service-----	
	SOUTH AMERICA				
Hamburg-South America--	East coast-----	9	117	Weekly, combined passenger and freight.	
Papag-Lloyd (joint service).	West coast via Canal Zone-----	10	56	Weekly, combined passenger and freight.	Ports of call in Spain and Portugal en route.
	West coast via Strait of Magellan.	4	22	Every 7 weeks, combined passenger and freight.	
Hamburg-London-----	EUROPE				
	England-----		-----	-----	Other small lines operated in this trade; several of the larger lines made intermediate calls at British ports.

Argo Reederei Richard Adler & Co.	England			42		Other lines in similar service.
Neptun	Baltic			71		Part of triangular route Germany-Norway- United States.
Urag	Norway (see remarks)		4		Monthly	Ports of call en route to east coast of South America.
Hamburg-South America	Spain and Portugal (see re- marks).		9		Weekly, combined passen- ger and freight.	
German-Africa	AFRICA					
	Western route around Africa		4	32	Monthly, combined passen- ger and freight.	
	Eastern route around Africa		3	25	Combined passenger and freight.	
	Mozambique		2	33	Monthly, express, combined passenger and freight.	
Laersz	West Africa		5	17	Weekly, refrigerator service.	
North German Lloyd	Canary Islands		3	9	Fortnightly, freight	Service calls at Lourenço Marques.
	NEAR EAST AND FAR EAST					
Atlas Levant	East Mediterranean		12	68	Freight	
Hansa	India			268 (total fleet)	3 times a month	
Hamburg-America	Persian Gulf				Fortnightly	
Hapag-Lloyd (joint service).	Netherlands East Indies		6	39	Every 18 days, freight	
Hamburg-America	Japan, via Strait of Malacca, N. E. I., and Manila.		10	85	3 times a month, freight	
	Japan, via Singapore, Hong Kong, etc.		10	65	Fortnightly, freight	
North German Lloyd	Japan, via Strait of Malacca, Manila, etc.		3	54	Monthly, express, combined passenger and freight.	
Rickmers	Far East		7	35	Monthly, freight	
Hamburg-America	Australia via Cape of Good Hope.		4	29	Monthly, freight	
North German Lloyd	Australia via Cape of Good Hope.		3	25	Freight	

Annex C. Total sea-borne cargoes inbound to Germany by commodities and foreign origin (year 1936—metric tons)

Commodities	Total	Scandinavia and Baltic Range including Arctic Russia	Great Britain-Holland-Spain Range	South America Range	Mediterranean and Black Sea Range	United States and Canada Range	Central America and Mexico Range	West Africa Range	South and East Africa Range	Far East Range	Australasia Range	India Range
Fish and products.....	298,584	149,087	145,343	18	314	2,091	50	239	30	1,411	1	---
Meat and dairy products.....	178,814	122,053	8,702	40,524	26	176	---	1	---	7,332	---	---
Grains.....	877,751	42,628	53,414	390,102	202,369	54,626	8,690	1,694	255	113,202	3,153	7,618
Fruits and vegetables.....	588,606	13,186	189,353	47,619	179,847	31,114	16,377	100,535	1,659	236	7,130	1,550
Oil seeds and oil fruits.....	1,213,285	7,911	29,501	98,474	35,675	111	985	279,150	24,843	583,242	7,969	145,424
Coffee.....	231,713	159	12,774	128,863	45	9,090	68,389	3,515	3,763	3,671	---	1,444
Animal and vegetable fats and oils.....	338,128	155,494	72,177	20,623	6,019	5,410	1	24,483	33	51,082	362	2,444
Brans and meals.....	105,907	2,589	21,097	66,943	15,177	---	---	---	---	---	101	---
Oil cake.....	294,059	25,823	26,497	104,981	39,277	26,307	3,249	120	733	26,398	---	40,674
Fodder.....	121,091	66,303	23,809	5,487	1,144	1,114	554	4,003	119	17,315	1	1,242
Animal, vegetable raw material, N. E. S.	487,717	64,564	150,017	32,324	43,819	69,034	16,876	5,876	4,827	68,092	1,067	31,221
Ores, iron and manganese.....	4,475,957	3,970,815	108,594	2,762	331,240	12,217	20	17,853	12,778	5,127	---	14,551
Pyrites.....	411,488	181,931	104,778	---	124,643	136	---	---	---	---	---	---
Other ores.....	427,536	136,804	79,674	33,398	87,762	7,643	14,169	5,516	1,004	26,036	25,228	10,302
Coal and coke.....	4,152,387	43,580	4,104,416	---	4,202	5	---	---	83	101	---	---
Petroleum and products.....	3,745,480	11,614	196,213	97,624	994,460	827,976	1,528,816	9	---	56,542	---	32,226
Stones, gravel, and sand.....	647,308	134,314	508,271	105	4,240	246	100	1	19	---	---	12
Bauxite, cryolite, and clay.....	117,672	3,728	16,309	---	97,630	5	---	---	---	---	---	---
Other minerals.....	944,282	114,956	64,414	1,201	224,925	463,167	48,882	1	5,648	14,411	3,750	2,927
Chemicals.....	233,155	46,855	71,607	64,005	16,747	22,001	172	31	5,245	5,329	120	1,043
Fertilizers.....	592,538	10,483	360,506	174,447	15,500	30,363	---	---	---	---	---	1,239
Hides and skins.....	185,939	20,467	26,298	88,876	10,168	6,396	10,863	1,425	4,534	3,655	1,738	11,499
Wool, cotton, and products.....	936,015	26,682	134,388	123,967	61,719	237,067	15,162	9,605	39,989	43,673	25,841	217,922
Lumber.....	1,235,680	881,382	49,183	8,257	20,413	85,421	6,647	175,787	281	7,476	562	271
Pulpwood.....	772,394	758,966	---	---	---	13,428	---	---	---	---	---	---
Chemical pulp.....	223,058	200,006	20,976	---	262	1,801	---	---	---	---	---	13
Copper, zinc, and lead.....	348,444	52,165	92,753	21,830	13,345	80,100	16,261	18,792	36,455	7,109	8,740	894
Miscellaneous.....	1,342,563	445,954	479,034	48,564	90,958	74,077	26,558	101,385	13,175	34,799	3,600	24,459
Total 1936.....	25,527,551	7,690,499	7,150,098	1,600,994	2,621,926	2,061,122	1,782,821	750,021	155,473	1,076,239	89,383	548,975
Total 1937.....	29,822,360	8,242,105	8,383,409	2,485,935	2,880,031	2,474,162	2,102,032	820,578	248,545	1,305,160	124,359	756,044

Annex D. Total sea-borne cargoes outbound from Germany by commodities and foreign destination (year 1936—metric tons)

Commodities	Total	Scandinavia and Baltic Range including Aretie Russia	Great Britain-Holland-Spain Range	South America Range	Mediterranean and Black Sea Range	United States and Canada Range	Central America and Mexico Range	West Africa Range	South and Africa Range	Far East Range	Australasia Range	India Range
Fish, meat and dairy products.....	74,746	4,361	32,908	3,279	2,601	16,153	1,474	8,104	530	4,146	599	591
Grain.....	1,080,879	119,318	930,814	2,262	2,195	6,730	6,260	4,412	130	8,692	2	64
Fruits and vegetables.....	101,425	45,301	40,169	8,149	4,125	2,351	919	265	118	-----	8	20
Animal and vegetable fats and oils.....	101,503	13,394	63,148	1,472	4,027	16,905	1,028	289	224	504	365	147
Flour.....	162,390	9,459	143,754	22	6,132	12	52	2,821	130	7	1	-----
Sugar.....	276,652	33,320	186,163	7,130	36,178	672	2	4,872	560	4,443	-----	3,312
Alcohol and beverages.....	50,860	2,265	13,582	549	2,015	7,488	1,292	13,371	1,637	3,998	79	4,584
Oil cake.....	257,938	243,621	14,297	1	-----	19	-----	-----	-----	-----	-----	-----
Coal and coke.....	5,256,485	2,778,173	173,714	300,312	1,609,026	293,870	30,969	14,107	34,057	3,111	19	19,127
Petroleum and products.....	425,445	143,286	182,215	2,619	13,841	9,914	2,350	3,325	46,175	1,487	3,953	16,280
Cement.....	254,840	17,467	9,957	86,834	5,366	13,359	60,877	29,647	4,192	8,013	10	19,118
Salt.....	300,695	187,250	16,773	571	127	882	1,257	10,081	864	36,065	103	46,722
Chemicals.....	576,940	247,296	122,424	29,722	30,352	91,287	8,703	3,102	5,097	22,735	3,896	12,326
Fertilizers.....	1,220,186	349,247	196,836	33,328	30,163	337,812	20,439	2,598	7,518	232,943	5,065	4,237
Wood and products.....	286,153	27,679	125,135	15,244	8,129	9,203	2,439	12,341	46,171	11,326	4,635	23,851
Chemical pulp.....	317,979	1,657	118,528	29,110	8,976	122,057	11,080	-----	257	25,950	56	308
Cardboard and paper.....	523,721	13,622	160,518	58,412	24,749	69,125	12,883	3,882	14,506	109,074	12,543	44,407
Glasswares.....	175,141	23,426	67,369	19,779	8,737	19,498	5,580	2,170	7,106	8,557	3,295	9,624
Iron and steel and products.....	1,861,584	685,361	176,973	324,960	156,022	75,533	68,279	23,610	47,676	183,779	9,854	109,537
Copper, zinc, alloys and products.....	167,055	40,601	47,131	15,043	22,248	5,647	1,998	577	3,370	10,894	1,167	18,379
Vehicles.....	63,582	17,475	2,225	12,622	2,974	611	2,486	2,185	10,833	8,516	594	3,061
Industrial products, N. E. S.....	255,376	68,751	59,263	24,052	14,427	38,436	8,501	10,835	5,633	12,054	2,384	11,040
Miscellaneous.....	1,366,640	519,602	493,778	63,725	64,834	139,902	19,350	8,789	10,613	22,624	6,370	17,053
Total 1936.....	15,158,215	5,591,932	3,377,674	1,039,197	2,057,244	1,277,466	268,218	161,383	247,397	718,918	54,998	363,788
Total 1937.....	18,001,102	6,487,581	4,074,583	1,031,917	2,728,390	1,508,930	342,247	256,784	253,206	871,111	68,289	378,064

Annex E. Coastwise traffic between German ports during 1936

[In thousands of metric tons]

From—	Total	To—(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(16)	(17)	(18)
1 East Prussia ports-----	549	---	89	5	---	19	13	137	89	31	41	32	14	---	79
2 Stettin-----	2, 125	1, 706	---	52	8	27	67	69	78	7	41	10	---	4	56
3 Other Pomerania ports-----	614	68	193	7	9	4	3	29	101	35	34	24	5	13	89
4 Mecklenburg-----	95	---	2	1	1	5	3	11	22	13	7	6	5	4	15
5 Lübeck-----	113	47	15	13	10	---	16	---	1	1	---	8	---	1	1
6 Schleswig-Holstein, Baltic-----	260	4	12	8	26	6	30	32	18	1	---	102	2	3	16
7 Hamburg-----	1, 374	327	161	49	40	---	43	---	325	56	35	98	---	26	214
9 Bremen-----	683	197	28	11	2	---	11	169	---	2	---	239	---	---	24
10 Oldenburg-----	247	199	3	---	---	---	2	16	1	15	1	9	---	---	1
11 Ems ports-----	2, 861	132	1, 005	15	---	399	156	770	---	3	---	380	1	---	12
12 Other North Sea ports-----	359	20	23	62	10	4	9	34	29	21	5	123	1	6	19
16 Elbe Oder ports-----	100	18	---	8	5	---	---	---	---	2	3	17	---	19	28
17 Northwest Germany ports-----	191	1	4	6	2	3	22	52	---	1	---	65	35	---	---
18 Rhine district-----	731	173	76	36	18	17	24	270	15	---	---	36	66	---	---
Total-----	10, 302	2, 892	1, 611	273	131	484	399	1, 589	679	188	167	1, 149	129	76	535

Annex F. Income from ocean shipping (in RM millions)¹

Year	Income from—							Expenditure in foreign P.	Net “known” income	
	Freight— foreign and German goods	Passengers		Total	Miscellaneous receipts from — ²					Total receipts
		Foreign	German		Foreigners	Germans	Total			
1	2	3	4	5	6	7	8	9	10	
1926	563	95		95	38		38	696	311	385
1927	685	135		135	44		44	864	386	478
1928	734	153		153	45		45	932	417	515
1929	760	179		179	47		47	986	441	545
1930	624	210		210	39		39	874	391	482
1931	494	155		155	31		31	680	305	375
1932	350	113		113	14		14	477	237	240
1933	321	75		75	11		11	407	214	193
1934	319	56	27	83	15		15	417	193	224
1935	341	64	34	98	7		7	446	202	244
1936	410	73	38	111	12	18	30	550	215	335
1937	550	78	38-41	116-119	19	26	45	711-714	261	450-53

¹ Sources: "Zahlungsbilanz der Seeschifffahrt," Wirtschaft und Statistik 1933, 1935, 1936, 1937, 1938.² Charter money, salvage money, etc.

NOTE.—For technical reasons of accounting, more specifically diversified methods of evaluating merchandise, imports, and exports in the official trade statistics, receipts from the shipment of German as well as foreign goods in German ships appear in the balance of payments. Recorded merchandise values (c. i. f.) include shipping costs while merchandise export values (f. o. b.) do not. Hence, an additional credit must be carried for shipping earnings from foreigners when German goods are exported on German boats. In the case of imports of foreign goods on German boats, an additional credit must also be entered on the balance to offset the shipping costs debited with the merchandise import item. For goods carried on foreign boats no accounting adjustments are necessary. Payments to foreigners for transporting imports and expenditures of foreigners for German export goods carried on foreign boats obviously need not appear in the German balance of payments. Thus, freight receipts, as recorded in the balance of payments, include payments from nationals as well as from foreigners for the overseas shipment of goods in German boats (see column 1).

The figures in columns 1, 2, and 5 appear in the German balance of payments; thus, complete series for the period 1926-38 are available. To derive annual gross shipping income, passenger earnings and miscellaneous receipts from nationals must be added to the sum of these three items. Since the former figures were available for only a few years, net shipping income as it appears in column 10 is apparently a minimum figure—at least for the years preceding 1936.

Annex G. Breakdown of the German merchant marine in 1938, by type of vessels

	Number	GRT
Vessels over 100 GRT:¹		
Steamships-----	1, 438	3, 094, 149
Motorships-----	351	828, 830
Sailing vessels with and without motors-----	441	84, 516
Barges-----	160	51, 940
Total ships of more than 100 GRT-----	2, 390	4, 059, 435
A. Steamships over 100 GRT:		
Passenger and cargo vessels:		
Over 20,000 GRT-----	8	248, 234
10,000 to 20,000 GRT-----	17	255, 076
1,000 to 10,000 GRT-----	63	352, 040
Cargo vessels:		
6,000 to 10,000 GRT-----	71	518, 515
3,000 to 6,000 GRT-----	157	716, 646
1,600 to 3,000 GRT-----	171	382, 583
1,000 to 1,600 GRT-----	123	164, 691
100 to 1,000 GRT-----	346	218, 687
Tankers:		
Over 1,000 GRT-----	6	27, 334
100 to 1,000 GRT-----	9	5, 017
Whaler-tenders-----	4	55, 506
Whalers-----	30	9, 815
Fishing craft-----	359	106, 062
Tugs and salvage vessels-----	61	10, 918
Icebreakers-----	6	3, 455
Cable ships-----	2	8, 737
Train ferries-----	5	10, 833
Total for 1938-----	1, 438	3, 094, 149
Total for 1937-----	1, 937	2, 943, 979
B. Motorships over 100 GRT:		
Passenger and cargo vessels:		
10,000 to 20,000 GRT-----	9	124, 177
1,000 to 10,000 GRT-----	38	229, 590
Cargo vessels:		
6,000 to 10,000 GRT-----	25	177, 196
3,000 to 6,000 GRT-----	28	119, 115
1,600 to 3,000 GRT-----	8	18, 326
1,000 to 1,600 GRT-----	19	22, 799
100 to 1,000 GRT-----	186	39, 257
Tankers:		
Over 1,000 GRT-----	17	90, 639
100 to 1,000 GRT-----	8	3, 810
Fishing vessels-----	10	2, 916
Tugs and salvage vessels-----	3	1, 005
Total for 1938-----	351	828, 830
Total for 1937-----	301	741, 410

¹ These figures, from the Germanischer Lloyd, do not exactly agree with figures from other equally reliable sources, but are given because they afford the most complete breakdown available.

Annex G. Breakdown of the German merchant marine in 1938, by type of vessels—Continued

	Number	GRT
C. Sailing vessels with or without motors, over 100 GRT:		
Cargo vessels:		
Without auxiliary motor, over 1,000 GRT.....	3	8, 519
With auxiliary motor, over 1,000 GRT.....	2	5, 399
School-training ships without auxiliary motors.....	3	5, 370
Fishing vessels:		
Steamlugger.....	61	9, 275
Motorlugger.....	105	16, 187
Other sailing vessels:		
Without auxiliary motors.....	2	427
With auxiliary motor.....	265	39, 339
Total for 1938.....	441	84, 516
Total for 1937.....	434	81, 943
D. Barges:		
Tank barges.....	14	5, 514
Barges without motor.....	112	41, 901
Barges with auxiliary motor (sail, motor).....	34	4, 525
Total for 1938.....	160	51, 940
Total for 1937.....	160	52, 314

Annex H. Germany: Merchant tonnage completed in German yards, 1929, 1937

Year	Seagoing		River craft		Total		North Sea Yards		Baltic Yards		Inland	
	Nos.	G. R. Tons	Nos.	G. R. Tons	Nos.	G. R. Tons	Nos.	G. R. Tons	Nos.	G. R. Tons	Nos.	G. R. Tons
FOR GERMAN ACCOUNT												
<i>Totals all types</i>												
1929-----	59	22, 184	198	31, 181	257	252, 765	93	208, 202	49	27, 275	115	17, 288
1937-----	151	181, 199	252	46, 763	403	228, 962	117	133, 994	34	47, 699	252	47, 269
<i>Steamships</i>												
1929-----	45	152, 757	9	1, 915	54	154, 672	33	138, 844	13	14, 013	8	1, 815
1937-----	59	100, 330	6	2, 901	65	103, 231	47	72, 414	12	30, 559	6	258
<i>Motorships</i>												
1929-----	59	100, 330	6	2, 901	65	103, 231	47	72, 414	12	30, 559	6	258
1937-----	64	75, 386	110	27, 579	-174	102, 965	50	58, 427	13	15, 315	111	29, 223
<i>Miscellaneous</i>												
1929-----	1	334	112	19, 445	113	19, 779	38	7, 991	19	3, 023	56	8, 765
1937-----	28	6, 483	136	16, 283	164	22, 766	20	3, 153	9	1, 825	135	17, 788

FOR FOREIGN ACCOUNT

Totals all types

1929-----	46	136, 024	293	31, 187	339	167, 211	67	52, 968	81	100, 917	191	13, 326
1937-----	53	218, 192	36	8, 300	89	226, 492	56	180, 187	11	41, 058	22	5, 247

Steamships

1929-----	19	14, 796	11	1, 985	30	51, 227	19	22, 601	8	27, 746	3	880
1937-----	1	2, 149	-----	-----	1	2, 149	-----	-----	1	2, 149	-----	-----

Motorships

1929-----	23	85, 888	46	8, 338	69	94, 226	21	25, 954	16	63, 432	32	4, 840
1937-----	40	214, 673	23	4, 679	63	219, 352	43	178, 698	5	38, 159	15	2, 495

Miscellaneous

1929-----	4	894	236	20, 864	240	21, 758	27	4, 413	57	9, 739	156	7, 606
1937-----	12	1, 370	13	3, 621	25	4, 991	13	1, 489	5	750	7	2, 752

Annex I. Source of supply of manpower

A. Maritime states and port towns B. States and cities in the interior	Seamen per 100,000 inhabitants	Nautical students	
		Students 1923-31	Students per 100,000 inhabitants
<i>A</i>			
East Prussia.....	74. 9	419	18. 1
West Prussia—Posen.....	26. 4	228	68. 6
Pommern.....	154. 3	759	40. 4
Mecklenburg.....	144. 2	264	33. 7
Schleswig-Holstein.....	275. 3	1, 790	129. 8
Hannover.....	222. 5	2, 142	69. 1
Oldenburg.....	431. 3	538	115. 2
Lubeck (city).....	278. 9	121	91. 0
Hamburg (state).....	303. 5	889	69. 7
Bremen.....	676. 6	288	85. 0
<i>B</i>			
Berlin.....	18. 7	267	6. 6
Brandenburg.....	23. 2	187	7. 2
Schlesien.....	21. 1	182	4. 0
Sachsen.....	29. 8	164	4. 9
Westphalen.....	16. 3	257	5. 4
Hessen-Nassau.....		54	2. 2
Rheinland.....		209	2. 9
Bayern (Pfalz and Saargebiet).....		156	2. 1
Sachsen (state).....	13. 8	216	3. 3
Wurttemberg.....	6. 5	43	1. 7
Baden.....	16. 4	64	2. 8
Thuringen.....	34. 5	81	5. 0
Hessen.....	10. 4	52	3. 8
Braunschweig.....	80. 0	57	11. 4
Anhalt.....		30	8. 5
Lippe.....		72	34. 1

Annex J. Pay rates in the German merchant marine

Pay rates for all personnel except wireless operators employed in seagoing merchant ships of over 100 GRT other than tugs, lighters, and salvage vessels were fixed by the Collective Regulation (*Tarifordnung*) of December 1934 (with certain amendments) issued under the National Labor Regulation Act of 20 January 1934. Except for a few modifications regarding supplementary conditions, these regulations maintained the wage scales established by national collective agreements in 1932. These rates and other conditions were still in force in the summer of 1936. They are given below.

TABLE 1.—*Masters (vessels over 100 GRT)*
[Minimum monthly rates in RM, with subsistence]

Mechanically propelled vessels:	
Ocean trade and extended home trade.....	550
North Sea and Baltic trade.....	480
101-400 GRT all trades.....	400
401-800 GRT all trades.....	455
Sailing vessels:	
101-500 GRT.....	400
501-1,000 GRT.....	480
1,001 GRT and over.....	550

The salary of masters was left to be settled by agreement between the ship-owner and the master, but whatever the method of fixing the salary (whether by lump sum payments only or also by a commission on profits or turnover) the amounts actually paid could not be less per month than those given above. Extra allowances for seniority or special trades were a matter for agreement between the parties.

TABLE 2.—*Deck and Engineers Officers (ships over 100 GRT)*

[Standard monthly rates in RM, with subsistence]

	Ocean trade	Trade to Great Britain and Ireland	North Sea and Baltic traffic	Vessels of from 101-400 GRT in all trades
Chief mate-----	300	290	240	190
2d mate-----	245	230	180	152
3d mate-----	185	175	142	-----
4th mate-----	140	130	-----	-----
Chief engineer-----	450	425	330	240
2d engineer-----	300	290	240	180
3d engineer-----	245	230	180	-----
4th engineer-----	185	175	-----	-----

One mate only—240.

One engineer only—245.

(1) Lump sum for assistant engineers: 24 RM per month

(2) Monthly allowance for clothes (engineers on mechanically propelled vessels): up to 1,500 GRT, 25 RM; over 1,500 GRT, 30 RM.

(3) Supplement for wireless service: on vessels with wireless personnel, 30 RM per month; on vessels without wireless personnel, 65 RM per month.

(4) Overtime: ship's officers employed on vessels in North Sea and Baltic trades, and in trade to Great Britain and Ireland, if required to work in port more than 30 hours per month in excess of normal hours of work in port, are entitled to extra pay as follows:

(a) 1 RM. per hour or

(b) a monthly lump sum payment calculated as follows:

30 to 50 hours' overtime—10 percent of monthly salary.

50 to 60 hours' overtime—15 percent of monthly salary.

60 to 70 hours' overtime—20 percent of monthly salary.

70 and over hours' overtime—25 percent of monthly salary.

The competent Labor Trustee could decide to apply these rules to similar trades to those specified above.

TABLE 3.—*Subordinate Deck and Engine-room Staff (ships over 100 GRT)*

[Standard monthly rates in RM., with subsistence]

Deck:	
1st boatswain, 1st carpenter-----	124
2d boatswain, 2d carpenter-----	110
Only boatswain, only carpenter-----	124
Sailmaker-----	110
Helmsman-----	110
A. B.-----	103
O. S.-----	50
Light hand-----	35
Boy-----	25

TABLE 3.—*Subordinate Deck and Engine-room Staff (ships over 100 GRT)—C.*Engine-room: ¹

Electrician: as 4th engineer, assistant engineers and assistant electricians with at least 1 year's service as assistant	19
Assistant engineer and assistant electrician with less service	5
Petty officers-storekeeper, leading fireman, greaser, donkeyman	19
Fireman	13
Experienced cleaners on motor vessels	1
Inexperienced cleaners on motor vessels	0
Trimmer	3
(1) Allowance for boiler scaling and other cleaning work: 2.80 RM. a day	
(2) Monthly allowance for clothes on mechanically propelled vessels:	
Subordinate engine-room staff—Up to 1,500 GRT	15 R.
Subordinate engine-room staff—Over 1,500 GRT	20 R.
(3) Monthly allowance for carpenter using his own tools: 7 RM.	
(4) Overtime: Skilled ratings	0.72 RM.
Unskilled ratings	.42 RM. (excluding boys).
Boys	.25 RM.

¹ If two electricians are carried, the first is to be paid at the same rate as the 3d engine the second at the rate of the 4th engineer.

TABLE 4.—*Steward Staff (ships over 100 GRT), General Scale*

[Standard monthly rates in RM, with subsistence]

Cook	1
1st steward, 1-4 years	
5-8 years	1
9 years and more	1
Steward, passenger vessels in North Sea & Baltic trade	
Cabin steward, cargo vessels, and only steward	
Trained butcher and baker, serving as such or as cook's mate	
Cook's mate with previous sea service	
Cook's mate, without such service	
Mess steward	
Mess boys	

	<i>Under 15 men in crew</i>	<i>15 men and over in crew</i>
(1) Overtime rates (per month):		
Stewards, cargo vessels (excluding young hands)	9. 50	11. 50
Cooks, cargo vessels (excluding young hands)	23. 00	31. 00
Cook's mates (with sea experience) including trained bakers and butchers serving as such (cargo vessels)	14. 25	19. 00
(2) Extra allowance for cooks on baking days: 1.40 a day.		

TABLE 5.—*Steward Staff (ships over 100 GRT)—Special scale for passenger trade*

[Monthly wages and lump sum allowances in RM, with subsistence]

	1-4 years	5-8 years	9th and following years
Purser.....	280	320	365
Chief Steward:			
On 1st class.....	184	210	235
On 2d class.....	161	170	183
On 3d class.....	143	161	180
Assistant chief steward.....	155	165	185
Laundry steward.....	152	163	173
1st steward.....	120	133	145
Chief cook.....	312	365	430

Second purser, 1-2 years.....	188
3d and following years.....	220
Assistant purser, 1st year.....	113
2-3 years.....	126
4th and following years.....	140
Assistant chief cook, 1-6 years.....	225-300

General supplementary conditions:

- (1) If a steamship or motor vessel had not called at a German port for loading or discharge for 18 months, the members of the crew were entitled to 20 percent increase in wages from the commencement of the 19th month of service. The above period of 18 months could not be interrupted by a call for repairs at the vessel's home port, or any other German port, not exceeding 5 days.
- (2) German members of the crew serving on vessels in auxiliary lines trading between non-European ports and carrying goods or passengers transhipped to or from German oversea liners or foreign liners belonging to the same "pool", were entitled to a 20 percent increase in wages commencing from the fourth month.
- (3) If a vessel were detained at its home port for at least 14 days without the date of sailing having been fixed, members of the crew were entitled to their ordinary wages, and to a subsistence allowance of 1.50 RM. per day, after a further period of 14 days, provided that at least 75 percent of the deck and engine-room staff and 25 percent of the catering staff were retained on board.
- (4) On vessels with a crew numbering from 10 to 15, cooks were entitled to an extra 10 percent if no cook's mate is carried.
- (5) Extra pay and special clothing at the owner's expense were to be provided for members of the engine-room staff engaged in the cleaning of interior boiler surfaces and furnaces and oil tanks and oil bilges.
- (6) Insurance of crew's effects: members of the crew were to be insured at the owner's expense against total or partial loss of effects resulting from loss of ship, stranding, or other casualty.
- (7) Subsistence allowance during annual leave, and if meals were not provided on board in port: 2.80 RM. a day.

Annex K. Daily vessel expenses of various class ships operated by the Hamburg-America line during 1936

Vessel particulars	Steamships (oil burners)			Steamships (coal burners)					Motorships			
	"Hansa"	"Kurmark"	"Tacoma"	"Amasis"	"Bitterfeld"	"Dortmund"	"Feodosia"	"Haverstein"	"Caribia"	"Milwaukee"	"Burgenland"	"Seattle"
Year built-----	1923	1930	1930	1923	1930	1926	1922	1921	1933	1929	1928	1928
Gross tonnage-----	21, 131	7, 021	8, 268	7, 129	7, 659	5, 138	3, 075	7, 974	12, 049	16, 624	7, 320	7, 369
Passenger capacity-----	966	49	49	24	-----	-----	6	-----	386	559	24	48
Horsepower-----	23, 000	6, 200	6, 200	4, 000	6, 200	2, 800	1, 550	3, 700	12, 200	13, 000	5, 350	5, 700
Speed-----	19	13	14	12	13	12	9½	9	17	15	12½	13½
Fuel consumption in tons:												
Sea-----	194	44	53	45	70	43	21	40	43	42	19	23
Port-----	30	4	4	9	6	8	5	9	3	4	2	2
Number of crew, deck and engine department-----	130	38	48	42	62	41	30	40	70	113	39	41
Stewards department-----	229	6	21	14	8	6	5	5	129	251	18	22
Expenses (Reichmarks)	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks	Reichmarks
Equipment-----	261	69	99	87	91	71	42	71	206	344	114	108
Repair reserve-----	570	95	145	123	105	100	55	90	270	555	155	140
Insurance-----	600	122	171	59	158	52	28	46	339	473	114	146
Communications-----	50	12	23	11	13	11	9	10	54	49	23	23
Wages:												
Deck and engine department-----	825	260	314	268	364	264	215	264	503	738	284	306
Other-----	1, 368	35	131	84	40	34	21	21	769	1, 492	109	130
Other crew expense including subsistence-----	522	63	87	90	80	62	55	67	325	510	87	96
Total working expense ¹ -----	4, 196	656	970	722	851	594	425	569	2, 466	4, 161	886	949
Interest-----	1, 026	308	360	69	354	129	76	124	707	627	197	216
Depreciation-----	3, 312	527	782	413	605	304	161	287	1, 643	2, 326	538	589
Government subsidy-----	872	252	307	265	289	198	124	278	492	696	270	279

¹ Total vessel expenses are not available. Data on cost of fuel not shown where and where available.

Annex L. Leading German steamship companies, approximate number of ships and GRT in 1939, home port, and personnel employed

German shipping lines after the reorganization of 1936 (privately owned)---	Name of former lines	Home port	Approximate number of vessels	Approximate GRT (1939)	Personnel em- ployed (1938)
Argo Reederei, Richard Adler & Co.-----	-----	Bremen-----	25	40, 000	-----
Atlas Levante Line, Deutsche Levante Line, G. m. b. H.-----	-----	Bremen-----	12	53, 000	626
Atlas Line-----	-----	Emden-----	7	40, 000	-----
Deutsche Africa Line-----	Woermann Lines----- German East Africa Line.	Hamburg----- Hamburg-----	18	158, 000	2, 647
John T. Essberger, Hamburg (Tankers)-----	-----	Hamburg-----	-----	70, 000	-----
Hamburg-America Line-----	-----	Hamburg-----	101	715, 000	13, 022
Hamburg-South America Line-----	-----	Hamburg-----	48	358, 000	6, 392
Hansa, Deutsche Dampfschiffahrtsgesellschaft-----	-----	Bremen-----	42	286, 000	2, 867
Hamburg-London Line G. m. b. H.-----	-----	Hamburg-----	-----	-----	-----
H. C. Horn, A. G. Line-----	-----	Hamburg-----	8	28, 000	474
F. Laeisz Line-----	-----	Hamburg-----	7	25, 000	-----
Neptun Dampfschiffahrtsgesellschaft-----	-----	Bremen-----	7	72, 000	1, 374
North German Lloyd-----	-----	Bremen-----	70	575, 000	12, 255
Oldenburg-Portuguese Line-----	-----	Hamburg-----	19	48, 000	748
Rickmers Line-----	-----	Hamburg-----	7	37, 000	758
Robert M. Sloman, Jr.-----	-----	Hamburg-----	18	42, 000	-----
Unterweser Reederei A. G. (Urag)-----	-----	Bremen-----	4	34, 000	-----

Annex M. Projected allocation of tonnage for economic supply program I for 1943 (north of Dover)

1. OVERSEA TRAFFIC IN DRY CARGOES AND CONSUMER GOODS

Traffic area	Imports to Germany (l. tons in '000's)	Exports from Germany (l. tons in '000's)	G. R. T. re- quired oper- ating con- tinuously (nearest '000 g. r. t.)
Norway to Germany	4, 459		
Germany to Norway		3, 337	57
Norway to Holland	1, 106		
Holland to Norway		234	11
Norway to Denmark	197		
Denmark to Norway		105	
Norway to Sweden	335		
Sweden to Norway		42	1
Sweden to Germany	12, 330		
Germany to Sweden		6, 148	77
Sweden to Holland	1, 847		
Holland to Sweden		912	11
Sweden to Denmark	420		2
Sweden to Finland	49		
Sweden to Belgium	25		
Finland to Germany	1, 397		
Germany to Finland		2, 320	15
Finland to Holland	150		
Holland to Finland		200	2
Finland to Denmark	196		
Denmark to Finland		88	1
Finland to Belgium	32		
Latvia to Germany	15		
Germany to Latvia		1, 750	11
Lithuania to Germany	20		
Germany to Lithuania		50	
Germany to Denmark		2, 240	7
Germany to Estonia		400	1
Holland to Denmark		360	1
Holland to Latvia		100	
Total	22, 578	18, 286	2, 05

2. OVERSEA TRAFFIC IN BULK OIL

Traffic area	Exports from Germany (l. tons in '000's)	G. R. T. required operating continuously (nearest '000 g. r. t.)
Germany to Norway	580	20
Germany to Denmark	66	2
Germany to Latvia	365	13
Germany to Finland	152	5
Germany to Lithuania	48	1
Total	1, 211	41

Annex M. Project allocation of tonnage for economic supply program E
for 1943 (north of Dover)—Continued

3. COASTWISE TRAFFIC

	G. R. T. required operating continuously (nearest '000)	
	Pass/Cargo	Tankers
Germany/Denmark/Holland-----	350	10
Norway-----	120	4
Sweden-----	140	5
Finland-----	40	1
Total-----	650	20

Annex O. Distribution of main imports to Germany from Scandinavia

[Estimates for 1943 in thousands of metric tons]

Commodity	Spheres of export				Spheres of import															
					North Sea Zone								Baltic Zone							
	From Norway	From Sweden	From Finland	Total	Antwerp	Rotterdam	Ymuiden	Dolzyl	Nordenham	Emden	Bremen	Hamburg	Total	Lubeck	Swinemunde	Stettin	Gdynia	Danzig	Konigsberg	Total
Iron ore	2,500	8,500		11,000		1,050	150			3,000	1,500	1,000	6,700	600		2,200	500	1,000		4,300
Pyrites	500			500						95		340	435	65						65
Fish	350			350								130	130	105	115					220
Fertilizers	130			130				50		40		40	130							
Timber	110	713	747	1,570	57	15		210	125	188	25	250	870	145		215	65	140	135	700
Pulp and paper	90	526	155	771		20		170	30	91		150	461	70		110	50	60	20	310
Ilmenite	60			60		15				45			60							
Carbide	30			30								30	30							
Copper, zinc and unwrought metals	39			39								14	14	25						25
Copper concentrates	21			21						12		9	21							
Iron and steel		73		73						15	25	15	55			15		3		18
Aggregates	3,830	9,812	902	14,544	57	1,100	150	430	155	3,486	1,550	1,978	8,906	1,010	115	2,540	615	1,203	155	5,638

Annex P. German-controlled and Swedish tonnage in northern waters (north of the Straits of Dover). Statement of resources and requirements as at 30th Sept. 1943

[Figures in thousand G. R. T.]

Assets				Liabilities			
	Pass/Cargo	Tanker	Total		Pass/Cargo	Tanker	Total
German mercantile strength at 3/9/39 -	2, 734	170	2, 904	Losses: from 3/9/39 to 30/9/43-----	1, 823	175	1, 998
Add:				Allowances:			
(a) Tonnage since returned to northern waters-----	115	12	127	(a) Vessels laid up-----	845	214	-----
(b) Tonnage seized in prize-----	202	48	250	(b) Tonnage under repair-----	600	12	-----
(c) Tonnage acquired from sub-ject and satellite nations-----	2, 427	153	2, 580	(c) Military transports-----	314	-----	-----
(d) New construction from 3/9/39 to 30/9/43-----	827	176	1, 003	(d) Naval and other requisitions-----	1, 100	290	-----
(e) Swedish mercantile strength at 3/9/39-----	699	193	892	Requirements:	2, 859	516	3, 375
				Tonnage estimated to be required for economic commitments and military maintenance-----	2, 705	61	2, 766
				Summary of liabilities			
				Losses-----	1, 823	175	1, 998
				Allowances-----	2, 859	516	3, 375
				Requirements-----	2, 705	61	2, 766
				Aggregate-----	7, 387	752	8, 139
				Balance being deficiency-----	383	-----	383
Total-----	7, 004	752	7, 756	Total-----	7, 004	752	7, 756

Annex Q. Breakdown of German-owned and controlled tonnage (passenger and cargo types) located north of Straits of Dover as of 30 Sept. 1943

TABLE 1

Size (grt)	German-controlled				German-owned	Total pass./cargo
	Norwegian (grt)	Danish (grt)	Dutch (grt)	Belgian (grt)	German (grt)	
100/499-----	140, 415	47, 345	108, 960	13, 073	286, 651	596, 4
500/999-----	69, 825	32, 373	3, 881	6, 529	186, 932	299, 5
1,000/1,999-----	120, 265	123, 228	11, 421	5, 883	332, 879	593, 6
2,000/2,999-----	41, 331	87, 725	16, 747	-----	290, 658	436, 4
3,000/3,999-----	47, 950	6, 236	11, 326	-----	207, 482	272, 9
4,000/4,999-----	71, 807	23, 263	17, 411	4, 958	211, 831	329, 2
5,000/5,999-----	84, 783	15, 896	10, 385	-----	280, 996	392, 0
6,000/6,999-----	12, 728	19, 489	13, 225	-----	114, 585	160, 0
7,000/7,999-----	28, 809	7, 014	15, 168	7, 340	128, 263	186, 5
8,000/8,999-----	8, 500	17, 138	25, 507	-----	110, 986	162, 1
9,000/9,999-----	-----	19, 494	28, 026	-----	37, 431	84, 9
10,000 and over----	13, 156	-----	44, 304	13, 761	543, 088	614, 3
Total-----	639, 569	399, 201	306, 361	51, 544	2, 731, 782	4, 128, 4
<i>Breakdown by fuel types</i>						
Diesel-----	255, 449	180, 194	143, 209	36, 098	702, 839	1, 317, 7
Oil-----	57, 570	27, 278	32, 448	-----	409, 674	526, 9
Coal-----	326, 550	191, 729	130, 704	15, 446	1, 619, 269	2, 283, 6

TABLE 2

Size (g. r. t.)	German controlled			German owned	Total tankers
	Norwegian (g. r. t.)	Danish (g. r. t.)	Dutch (g. r. t.)	German (g. r. t.)	
100/499-----	4, 712	1, 314	2, 019	2, 066	10, 1
500/999-----	2, 378	-----	2, 828	9, 329	14, 5
1,000/1,999-----	1, 202	1, 099	1, 100	8, 414	11, 8
2,000/2,999-----	2, 184	-----	-----	-----	2, 1
3,000/3,999-----	3, 941	-----	-----	7, 232	11, 1
4,000/4,999-----	-----	-----	-----	-----	-----
5,000/5,999-----	11, 188	-----	-----	11, 402	22, 5
6,000/6,999-----	31, 113	-----	12, 492	38, 933	82, 5
7,000/7,999-----	7, 824	-----	7, 984	37, 940	53, 7
8,000/8,999-----	25, 100	-----	8, 028	8, 133	41, 2
9,000/9,999-----	9, 323	-----	-----	9, 925	19, 2
10,000 and over----	49, 776	-----	-----	83, 815	133, 5
Total-----	148, 741	2, 413	34, 451	217, 189	402, 7
<i>Breakdown by types of fuel</i>					
Diesel-----	94, 109	834	34, 058	112, 305	241, 3
Oil-----	53, 717	1, 099	-----	82, 787	137, 6
Coal-----	915	480	393	22, 097	23, 8

Annex R. Breakdown of German-owned and controlled tonnage located south of Dover as of 30 Sept. 1943

[Gross registered tons]

Size (grt)	Controlled, French pass./cargo	Owned, German pass./cargo	Total pass./cargo	Controlled, French tankers	Owned, German tankers	Total tankers
100/499-----	66, 177	978	67, 155	1, 846	-----	1, 846
500/999-----	16, 332	6, 089	22, 421	1, 651	-----	1, 651
1,000/1,999-----	23, 593	7, 857	31, 450	3, 593	-----	3, 593
2,000/2,999-----	12, 084	2, 844	14, 928	7, 606	-----	7, 606
3,000/3,999-----	33, 110	3, 094	36, 204	-----	3, 371	3, 371
4,000/4,999-----	13, 383	8, 590	21, 973	-----	-----	-----
5,000/5,999-----	22, 243	5, 567	27, 810	-----	17, 083	17, 083
6,000/6,999-----	6, 300	37, 979	44, 279	-----	-----	-----
7,000/7,999-----	7, 110	30, 065	37, 175	-----	-----	-----
8,000/8,999-----	8, 150	8, 417	16, 567	-----	8, 050	8, 050
9,000/9,999-----	-----	9, 289	9, 289	9, 153	-----	9, 153
10,000 and over-----	18, 435	-----	18, 435	28, 020	31, 346	59, 366
Total-----	226, 917	120, 769	347, 686	51, 869	59, 850	111, 719
<i>Breakdown by type of fuel</i>						
Diesel-----	30, 033	67, 650	97, 683	39, 111	39, 396	78, 507
Oil-----	65, 499	17, 064	82, 563	12, 758	20, 454	33, 212
Coal-----	131, 385	36, 055	167, 440	-----	-----	-----

Annex S. Principal German Shipyards

Yard and engine works	Facilities (slip lengths, etc.)	Classes built: (a) naval, (b) mercantile.
BREMEN		
Atlaswerke A. C.: Work-shops for ships' auxiliary machinery, propellers, etc.).	3 broadside slips (440' x 90' in all). 1,500 employees (1938).	(a) 600-ton minesweepers, escort vessels. (b) Steamers up to 1,000 tons, tugs, lighters, pontoons.
Deschimag (Deutsche Schiff-u. Maschinenbau A. G.) (Well-equipped yard with large engine shops).	8 slips (300'/750')----- 2 broadside slips (600'). 3 floating docks (up to 17,500 tons). 1 graving dock being built. 15,000 employees.	(a) Destroyers up to 2,400 tons; U-boats of 740 and 1,200 tons; cruisers up to 10,000 tons. (b) Merchant ships up to 50,000 tons ("Bremen" built in 1929).
BREMERHAVEN		
Deschimag (Seebeck)----	2 slips (260')----- 4 graving docks (223'/522' length).	(a) U-boats of 740 tons. (b) Merchant ships up to 240 feet; trawlers.
Norddeutsche Werft----	2 slips (365'/450')----- 2 broadside slips. 1 patent slip.	(a) 600-ton minesweepers, escort vessels. (b) Merchant ships up to 7,000 tons.
Unterweser A. G. (Have extensive machine shops).	1 slip (200')-----	(a) 600-ton minesweepers and escort vessels. (b) Merchant ships and trawlers.

Annex S. Principal German Shipyards—Continued

Yard and engine works	Facilities (slip lengths, etc.)	Classes built: (a) naval, (b) mercantile.
DANZIG		
Danziger Werft (With large machine shops for engines, boilers, steering gear, propellers, etc.).	3 slips (up to 530')----- 4 floating docks (1,400/16,000 tons). 3 pontoons. 4,000/5,000 employees (1942).	(a) 500-ton U-boats. (b) Large merchant vessels and tankers, trawlers.
F. Schichau G. m. b. H.	5 slips (510'/630')----- 3 floating docks (1,000/2,300 tons). 5,000 employees (1941).	(a) 500-ton U-boats (cruisers and other warships in last war). (b) Large merchant vessels, including tanker up to 34,000 tons.
ELBING		
F. Schichau G. m. b. H. (with large machine shops, foundry, etc., for engines and marine castings, etc.).	6 slips (320'/380')----- 1 floating dock (325'). 5,000 employees (1942).	(a) 1,200-ton destroyer 600-ton torpedo boats (b) Merchant ships up to 4,000 tons, coastal river craft.
EMDEN		
Nordsee-Werke-----	3 slips (525'/550')----- 1 floating dock (5,000 tons). 2,500 employees (1942).	(a) 500-ton U-boats. (b) Merchant ships up to 12,000 tons, pontoon caissons, etc.
FLENSBURG		
Flensburger Schiffsbau--	5 slips (400'/700')----- 3 floating docks (145'/300'). 1,700 employees (1937).	(a) 500-ton U-boats. (b) Medium-sized merchant ships up to 9,000 tons.
HAMBURG		
Blohm u. Voss. K. G. (with workshops for prefabricating material, engine shops, etc.).	8 slips (250'/926')----- *7 floating docks (4,700/46,000 tons) (1,056' + 185). 15,000 employees (1942).	(a) Battleships, cruisers, destroyers, torpedo boats, U-boats. (b) Largest types of merchant and passenger ships.
Deutsche Werft (Finkenwärder) (Also produces ships' equipment).	6 slips (up to 750 feet)--- 1 floating dock (250'). 5,000 employees (1941).	(a) 740-ton U-boats. (b) Large merchant ships, tankers up to 15,000 tons.
Deutsche Werft (Reihersstieg).	2 slips (250'/400')----- 4 floating docks (4,500/13,300 tons). 3,000 employees (1941).	(a) 600-ton minesweepers, escort vessels, tank landing craft. (b) Merchant ships up to 10,000 tons, and tankers.
Howaldts Werke (Has large machine shops, including M. A. R. engine shops).	3 slips (650'/825')----- 4 floating docks (2,000/17,500 tons). 6,000 employees (1941).	(a) 500-ton U-boats. (b) Merchant ships, formerly large liners.
Norder Werft-----	4 slips (175'/250')----- 3 patent slips (25/150 tons). 1 floating dock (1,000 tons). 700 employees (1939).	(a) Aircraft salvage vessels. (b) Merchant vessels and tankers, fishing vessels.

*Three docks sunk in July 1943.

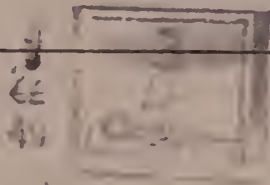
Annex S. Principal German Shipyards—Continued

Yard and engine works	Facilities (slip lengths, etc.)	Classes built: (a) naval, (b) mercantile.
HAMBURG—continued		
H. C. Stuleken Sohn----	4 slips (280'/320')----- 4 floating docks (2,100/ 5,700 tons). 1,500 employees.	(a) 600-ton minesweepers. (b) Small freighters, tank- ers, fishing vessels.
KIEL		
Friedrich Krupp Ger- mania Werft (has first- class engine shops; Diesels, boilers, tur- bines, propellers are made).	4 slips (540'/700')----- 4 covered slips (360'/540'). 4 floating docks (130' and 377'). 10,000/12,000 employees (1943).	(a) Cruisers, destroyers, U-boats of 500, 740, and 1,600 tons. (b) Merchant ships.
Kriegsmarinewerft (for- merly Howaldts Werke). (Has large machine shops and foundry.)	6 slips (350'/480')----- 9 floating docks (300'/ 530'). 6,000 employees (1941).	(a) 500-ton U-boats, U- boat depot ships. (b) Formerly large mer- chant ships and tankers.
Deutsche Werke Kiel A. G. (have Diesel, steam and gas engine shops and boiler shop).	3 slips (600'/1,000')----- 6 graving docks (304'/ 750' length). 5 floating docks. 5 pontoon docks. 13,000 employees (1941).	(a) U-boats of 250 and 500 tons; cruisers, aircraft carrier. (b) None.
KÖNIGSBERG		
F. Schichau G. m. b. H. -	3 slips (360'/430')----- 5 floating docks (250'/ 390') (400/3,500 tons). 1,000 employees (1941). 1 patent slip (250 tons).	(a) Aircraft tenders and auxiliary naval vessels. (b) Rivercraft up to 1,300 tons.
LÜBECK		
Lübecker Flenderwerke (has big structural steel and bridging de- partment).	5 slips (460'/560')----- 3 floating docks (310'/ 530'). 2,500 employees (1941).	(a) 500-ton U-boats, 600- ton minesweepers. (b) Merchant ships up to 5,000 tons, floating docks, locks, pontoons.
Lübecker Maschinenbau (has shops for excava- tors, machinery, etc.).	3 slips (200'/280')----- 2,800 employees (1938).	(a) 600-ton minesweepers, escort vessels. (b) Merchant vessels up to 3,000 tons, dredgers, floating cranes, tugs.
MANNHEIM		
Schiffs-und Maschinen- bau A. G.	680 employees (1941)-----	(a) Water carriers (105') and tank landing craft. (b) Tugs.
RENSBURG		
Merft Nobiskrug-----	3 slips (about 280')----- 3 patent slips (600/800 tons). 500 employees (1941).	(a) Escort vessels, gun boats. (b) Small merchant ships, floating docks.

Annex S. Principal German Shipyards—Continued

Yard and engine works	Facilities (slip lengths, etc.)	Classes built: (a) naval, (b) mercantile.
ROSTOCK		
Neptun A. G. Schiffswerft und Maschinenfabrik.	4 slips (250'/600')----- 2,000 employees (1941). 2 floating docks (310' and 400').	(a) 600-ton minesweeper escort vessels, 500-ton U-boats, M. T. B. depot (b) Merchant ships up to 4,000 tons.
STETTIN		
Stettiner Oderwerke-----	4 slips (460'/580')----- 6 floating docks (700/3,000 tons). 2,800 employees (1939) --- 6 pontoon docks.	(a) 600-ton minesweeper escort vessels, 500-ton U-boats. (b) Merchant ships up to 4,500 tons, icebreakers
Stettiner Vulkan-----	11 slips (90'/680')----- 1,000 employees (1941). 2 floating docks (150' and 320').	(a) 500-ton U-boats, tank landing craft. (b) Merchant ships, icebreakers.
VEGHSACK		
Bremer Vulkan-----	7 slips (580')----- 6,000 employees (1941).	(a) 500-ton U-boats. (b) Merchant ships up to 17,000 tons.
WILHELMSHAVEN		
Marinewerft-----	2 slips (700' and 800')----- 6 graving docks (377'/631' length). 10,000 employees (1941).	(a) Battleships, cruiser 500-ton U-boats. (b) None except in 1922-23.

NOTE.—The number of employees includes those in the shipyard and workshop serving it, on new construction, repairs and maintenance.



CIVIL AFFAIRS GUIDE

TELECOMMUNICATIONS
AND POSTAL SERVICES
OF GERMANY

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CIVIL AFFAIRS GUIDE

TELECOMMUNICATIONS AND POSTAL SERVICES OF GERMANY



CONFIDENTIAL

WAR DEPARTMENT,

WASHINGTON 25, D. C., 5 October 1944.

• War Department Pamphlet No. 31-149 Civil Affairs Guide, Telecommunications and Postal Service of Germany, has been prepared by the Research and Analysis Branch, Office of Strategic Services and is published for the information and guidance of all concerned.

[A. G. 461 (5 Oct. 1944).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

NOTE

Civil Affairs Guides and Civil Affairs Information Guides are designed to aid Civil Affairs Officers dealing with problems in theaters of operation, each Guide being focused upon a specific problem in a particular area. These Guides are not basic collections of factual information, as are the Civil Affairs Handbooks, nor are the recommendations (or action programs implied in the Guides) intended to take the place of plans prepared in the field. They are rather designed to point the factual information toward the making and executing of plans by those Civil Affairs Officers assigned to this work in the theaters of operation. *In no sense is a Guide to be taken as an order.* Such orders will be issued in the normal manner.

This Guide was prepared under the supervision of the Committee on Civil Affairs Guides and is approved by the Committee.

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Part I

I. GENERAL CONDITIONS AT THE TIME OF DEFEAT

The problems facing the civil affairs administrator in charge of communications will vary immensely with conditions obtaining at the time of the defeat of Germany.¹ The communications system will in any case be an essential element both in the administration of Military Government and in the rehabilitation of the country. It is not possible strictly to separate the military from the civilian communications systems, and hence civil affairs officers should take care to maintain active liason with signal units in the field, and plan a clear division of duties.

The communications system, if not properly controlled, will be used by anti-Allied elements for the conduct of sabotage and political opposition. Civil affairs officers should keep in mind that the suppression of Nazi elements in Germany may require a prolonged control over public communication. It is a stated policy of civil affairs administration that the G-2 (Intelligence) Division be consulted before any extension of postal, telegraph, or telephone services is made, and when made will be in conformity with the censorship requirements. Decisions as to the employment of German personnel should likewise be made in consultation with the intelligence units. It will not be possible to do without the use of German personnel, but it should be used only after adequate security checks have been made. Probably it will be feasible to deputize certain non-Nazi employees as security police within the Reichspost.

Most employees of the Reichspost will probably be so anxious for their jobs and so attached to their organization that they will be harmless, and the personal conservatism and timidity of the civil service should be played upon and efforts made to bolster the self-esteem of loyal Reichspost employees under Military Government. It should always be remembered, however, that communications employees will be in the best of all positions to organize anti-Allied

¹ For a general description of the Administration of German Communications, and the technical aspects thereof, see the Appendix to this Guide (R&A 1765.2).

activity, and that it takes only one employee to wreck, for instance telephone exchange. The cooperation of the vast majority will be useless if a small, actively Nazi minority is allowed to remain in the Reichspost.

II. TELECOMMUNICATIONS

The administration of telecommunications will be in the hands of Allied signal officers who, before operations begin, will be on the theater commander's staff. These officers will have studied the area in which they work for a long time before operations begin. As the Allied armies reach the area, they will be dropped from the theater commander's staff and placed on the military governor's staff. The officers will control all telecommunications operations, supply, and rehabilitation in their area.

Even before the Military Government has been set up, however, the armies engaged in combat will have seized telecommunications installations and will have installed considerable amounts of Allied signal equipment which may be left behind permanently and will in any case be available until rehabilitation of German facilities can be completed. The large amounts of signal matériel used by our armies during tactical operations will solve any immediate problem of supply. (In many parts of Sicily and Italy the Allies are operating a larger communications system than existed before the war.) Whether or not Allied signal personnel will be available in comparable numbers is hard to foresee.

The strictly military communications channels (from army headquarters to corps headquarters, etc.) will be operated by military personnel who presumably will be removed along with the corps and army should they be sent out of Germany before civil affairs operations are completed. However, while Allied armies are still in Germany, there will probably be Signal Corps personnel available for administration and repair.

Telecommunications administration has been planned in three stages (after the combat period). During the first stage essential emergency services² will be maintained by Allied equipment, if necessary. All other services will be deactivated at once. (Care should be taken at this point to locate all private telephone or teletype networks not operating through Reichspost exchanges, such as the railroad police, press services, and fire systems.) If German personnel must be used at this stage, older employees, less likely to have been genuine Nazis, should be chosen. Investigations of the reliability of all employees should begin as soon as possible.

² By essential emergency services are meant communications for the local government in its public safety and public health activities. Also included are vital industries and enterprises such as water supply, gas, power, food supply, transportation, and press and radio broadcasting.

The second stage embraces the emergency repair of the Reichspost facilities, where necessary. Although Allied signal equipment will be available for essential civil affairs operations, civil affairs officers should try to release as much of it as seems feasible for use in newly occupied areas. During this time Reichspost engineers of satisfactory security should be instructed to make a survey of all existing equipment, and to draw up plans for the rebuilding of the system if it has been damaged. If the G-2 (Intelligence) Division approves, services deactivated during the first stage could be restored subject to censorship requirements. Investigations of the reliability of Reichspost employees should be completed.

The third stage includes the restoration of the Reichspost system to its normal state under the plans made during the second stage. By this time, the political reliability of employees should have been ascertained, and genuinely Nazi employees should be permanently and formally dismissed.

III. RADIO

All radio transmitting facilities should, from the outset, be closely guarded and a survey made locating all of them. It is probable, however, that nearly all of them will be completely destroyed by the retreating Germans.

The extent to which broadcasting facilities should be restored and maintained by the Allies will depend upon the use they wish to make of them for propaganda purposes. The CA Guide *Adaptation of German Propaganda Control* should be consulted. Broadcasting stations could be employed by the occupying Forces for the communication of unclassified information. Fixed-point stations should be seized and used for communication by the military, while marine and air radio will naturally fall into the hands of the Allied naval and air commands. The DNB Nellschreiber news service could be used for the transmission of orders from Berlin, but care should first be taken that no piece of Nellschreiber apparatus is in the hands of the underground anti-Allied groups.

IV. POSTAL SERVICES

Officers should gain control of the Postal System by CA placing one or more officers in the headquarters of each Postal District (*Postdirektion*). The postal services of the German Reichpost should be maintained at least in part by the Allied administrators. The limiting factor will not be lack of personnel or transport service so much as lack of censorship personnel if the Allies decide to censor mail. Although it is impossible to determine with complete accuracy which services now remain and which have been abolished in wartime,

it is probable that most of the less essential will already have been discontinued by the Germans. The maintenance of Allied correspondence will require a minimum of personnel, which could probably handle a considerable civilian mail load as well. As with telecommunications personnel, older employees should be preferred.

A. Correspondence by letter.

Correspondence by letter should at first be strictly limited and made to conform to rigid requirements of space. Censorship is not a Military Government function, but cooperation must be given to any Allied units conducting censorship. Postcards should be favored for ease of censorship; experience in Italy indicates that this is the most feasible means of communication in areas under Allied government. Services such as registered mail, express, c. o. d., letters, small packages (*Päckchen*) and insured boxes (*Kästchen*) will not be essential. Delivery of newspapers, except those permitted or published by the military authorities, and commercial services (such as samples, mixed packages, and group packages) may be abolished without hardship. Should there be, however, adequate German personnel and transport facilities for the maintenance of these services, there is no reason to disturb them.

B. Parcel Post (Pakete).

Maintenance of parcel post in restricted quantities will be of great use as (1) an additional means of transport for the occupying forces and (2) a means of sending essential commodities between families and friends in different regions.

C. Banking Services.

The problems of the postal banking service can be solved only as a part of the country's banking system and are discussed in the CAI Guide on Banking.

D. Postage Stamps.

Military Government should introduce postage stamps devoid of Nazi personages or Nazi symbols.

E. Postal Transport System.

Although the principal transport systems will undoubtedly be taken over by the armies of occupation, the rural services connecting isolated villages should be maintained if possible. They would ease the supplying of rural produce to the cities, in addition to providing mail service to these communities.

PART II

I. SUMMARY

The German communications system is one of the most efficient in the world. The operation and control of all types of communication are centered in the Reichspost, one of the largest and most extensive branches of the German Government. The Reichspost provides regular public postal, telephone, and telegraph services, maintains extensive postal banking facilities, operates a fleet of busses, and is responsible for the technical standards and personnel of all radio stations.

This vast organization is headed by a Cabinet Minister, who has generally been a careerist in the postal service. He is assisted by a Secretary of State, who is second in command, and a Ministry, consisting of nine divisions. Directly responsible to the Ministry but not within it are the Central Office, the Public Press, the Research Institute, the Construction Office, and the Social Welfare Office. The Postal Savings Office, although it has its headquarters in Vienna, is also directly responsible to the Ministry.

The Ministry performs staff functions, and can act only through and in the name of the Minister. Command goes from the Minister directly to the presidents of the postal districts. There are 47³ of these postal districts and each contains an indefinite number of the various classes of post offices, telegraph offices, branch post offices, postal check offices, postal savings offices, etc., which constitute the public's contact with the Reichspost.

The German mail service was frequent and fast. All the classes of mail known in the United States were known in Germany, and in addition certain special services to business were included. The Reichspost also maintained a passenger interurban and rural transport service.

The German telephone service was, in terms of station equipment and personnel, one of the best in the world. Local operation was almost completely automatized, and some long-distance dialing is now possible. Completely automatic long-distance service is planned, but

³ Statistical tables in this appendix list 49 districts, the number in existence on 31 March 1939. Since this time 2 districts have been added and 4 abolished. See OSS Map 3099.

as it involves a considerable extension of the existing rather inadequate long-distance lines, it will probably not be carried on in wartime.

The German telegraph network is declining, but there has been corresponding growth in the use of teletypewriters, which are connected nationally by automatic exchanges. Submarine cables connected Germany before the war with England, North America, and South America.

German radio is highly developed with ample encouragement from the Nazi government. In order to reduce the range of receiving sets to a minimum without decreasing their ability to hear German programs, a system of synchronous transmission on the same frequency has been developed and a network of low-power auxiliary transmitters built.

German aeronautical and marine radio are of the latest type and considerable experimentation in aviation television had been carried on. In order to release frequencies for aeronautical use, the German government has attempted to replace fixed-point radio communications with wire telegraphy and telephony wherever possible.

Factual data on the extent and development of the German communications may be found in the CAD Handbook (Section XI, *Germany*, "Communications"). Where later intelligence has altered the picture, the fact has been noted in this Guide.

Although this Guide is intended to cover the area of Germany in 1937 only, in many cases it has been impossible to ignore administrative changes made by the growth of Greater Germany. Some of these changes have produced definite improvements in the operation of the German Post.

II. ANALYSIS OF THE PROBLEM

The basic problem facing the Civil Affairs administrator of communications for occupied Germany will be to provide adequate communications for military and essential civilian needs without endangering the security of the occupying government. Since practically all other aspects of Civil Affairs administration will depend upon communications, restoration of these services will be one of the most important and urgent tasks of the Civil Affairs officials. The entire program of rehabilitation can be carried out more easily once sufficient communication facilities are restored. The task will be more difficult, however, than that which faced the Allied government in Southern Italy, since a highly urbanized population requires more communication facilities than an agricultural one, and the restoration of a complex industrial society such as that of Germany could not be accomplished without an extensive system of communications.

The basic problem has many ramifications, on which decisions of policy and action must be made. Should the telephone, which is more

efficient, or the telegraph, which is more easily censored, be given first priority? Or should the carriage of mail be given preference, for reasons of morale or domestic economy, over the transportation of other important commodities? The allocation of materials for the repair of facilities will also be difficult and complex because of the numerous factors involved, especially the competing needs of other industries and of other areas outside Germany.

Another phase of the problem to be given very careful consideration is the determination of where the existing skilled German personnel can be safely used and where Allied operation is absolutely necessary. For perhaps no group of persons in the occupied territory will be in a more favorable position to organize resistance and conduct anti-Allied activity than the employees of the communications system. By means of prematurely reestablished public communications, the anti-Allied elements might easily recover and become dangerous. A suitable balance is not readily attained, especially if Allied personnel are to be as few as seems probable.

In order to solve the many problems which will face them, the Civil Affairs communications officials will need to know as much as possible about the German communications systems. The remainder of this section is therefore devoted to a description of the basic and more permanent aspects of this system.

A. The Reichspost.

The Reichspost is the name given to the entire civilian communications organization of Germany, and includes the postal, wire communication, and some radio services. The Reichspost is a department of the Reich (*Reichs-Verwaltung*).

For a general picture of the administrative hierarchy of the Reichspost see charts 1 and 2.

1. Headquarters of the Reichspost.

a. Minister.—The Reichspost is headed by a Minister who is a member of the Cabinet. The Minister has generally been a careerist in the Postal Service.

b. Secretary of State.—The Secretary of State is, next to the Minister, the highest officer of the Reichspost and acts in the Minister's absence. He is also in direct charge of the Fifth Service Division.

c. Service Divisions.—The Ministry (*Reichspost-ministerium*) includes the Minister, the Secretary of State, and the Service Divisions (*Fach Abteilungen*). The latter perform strictly staff functions and can give orders only through and in the name of the Minister. Matters concerning their respective provinces are routed to them through the Central Division. The Service Divisions are each headed by a Director and made up of a restricted number of Principals (*Referen-*

ten). These Principals are generally the first experts in their field; they act as technical advisers to the Divisional Director, the Secretary and the Minister, prepare governmental bills, and provide the Minister with material for legislation and political debate. They are left independent in matters which are not of ministerial scope and, for practical purposes, they decide policy on most questions arising in the field.

In addition to the Central Division and the Service Divisions, there are an Eastern Division (*Abteilung Ost*), handling matters in the eastern occupied territories, and a Foreign and Colonial Policy Division. The subjects handled by the individual divisions are shown in chart 1.

d. Central Bureaus.—See chart 1. All service offices not dealing with the public are directly responsible to the Ministry. They include the following:

(1) The Central Office of the Reichspost (*Reichspostzentramt*) has on a smaller scale some of the functions of the Ministry in deciding minor questions of policy. However, its main function is to publish regulations, compile statistics, and act as a general clearing house for orders and memoranda, and also to publish the postal guide and the railway guide.

(2) The Public Press (*Reichsdruckerei*).

(3) The Institute of Research (*Forschungsamt*) conducts experiments in physics, chemistry, and in postal technique.

(4) The Reichspost Construction Office (*Reichspostbauamt*).

(5) The Headquarters of the Social Welfare System (*Hauptverwaltung der Versorgungsanstalt der Deutschen Reichspost*) has its office in Dresden.

(6) The Postal Savings Office (*Postsparkassenamt*). (see Section on Postal Banking) has its headquarters in Vienna.

e. Council.—The Minister is assisted by a council (*Beirat der Deutschen Reichspost*) of 10 members chosen by the Cabinet on the advice of the Minister. The functions of the council appear to be inconsequential and the members serve without compensation.

2. Local Authorities.—The Reichspost is highly decentralized in its administration. About the only exception to this is the Postal Savings Administration, which has only a limited number of accounting offices dealing with Vienna. These offices consolidate postal savings accounts within their respective areas. All other postal matters are handled through the presidents of the 47 Postal Districts of Greater Germany, who need consult the Ministry only on larger questions. Since a high degree of uniformity must be maintained by the Postal Service, the presidents must follow directives from the Ministry and be careful not to violate Ministerial policy. On the other hand all communica-

tions activity in their districts is under their control, and all questions must pass through their hands.

a. Postal Districts.—There are 47 Postal Districts (*postdirektionen*) in Greater Germany. Although their boundaries (OSS Map 3099) generally correspond with state, provincial, or *Bezirk* boundaries, they do not always do so, and the postal administrative system is entirely separate from other administrative systems. The presidents of the Postal Districts hold the same rank as heads of the central bureaus.

b. Local Offices.—The actual operations of the postal services are carried out by the main post offices (*Postämter*), branch post offices (*Zweigpostämter*), by postal agencies (*Postagenturen*), by secondary post offices (*Poststellen*), by rural post offices (*Posthilfstellen*), by postal checking offices (*Postscheckämter*), by railway post offices (*Bahnpostämter*), and by traveling post offices in mail vans on railway trains (*Bahnpost*). The wire communications are similarly operated by the telephone offices (*Fernsprechämter*), the telegraph offices (*Telegraphenämter*), the branch telegraph offices (*Zweigtelegraphenämter*), the rural telegraph offices (*Telegraphenhilfstellen*), and the telegraph construction offices (*Telegraphenbauämter*).

The Reichspost adapts its services to the needs of each type of community, but the regulations which govern these services are exact and thought out to the last detail. The duties and responsibilities pertaining to each grade of the service and to each individual class of employee are clearly defined. The Reichspost administration, like all other administrations of the German government, went through a process of unification and simplification before the present regime (in 1926). This has continued with few modifications to the present time and is admirably adapted to modern needs and to efficient service.

3. General Lines of Authority.—The vast majority of administrative matters are handled in the manner described above, but there are special arrangements in cases of finance and of personnel, as described below.

a. Fiscal and Budgetary Matters.—Each of the Postal Districts has a cashier through whom all accounts are recorded. The Research Institute and the *Reichspostzentralamt* also have their own cashiers. All receipts and expenditures must be audited by the Court of Accounts of the Reich. The annual budget of the Reichspost is prepared by the Ministry and approved by the Minister and Finance Minister. The fiscal year dates from April 1 to March 31. (See tables 1 and 2.)

b. Personnel.—(See table 3.) All personnel of the Reichspost are regular government employees, but only some of them are *Beamter*. (See the CAD Handbook on Germany: Section 2: Government and

Administration (Army Service Forces Manual M 356-2). The military form of organization in which the Reichspost operates is matched by the strong military background of much of the personnel. Under the Weimar Republic it was customary for the Reichspost to hire soldiers who had served their 12 years in the communications branches of the army. The Nazi government intensified this trend by giving preference to all ex-soldiers and by replacing large numbers of hostile and lukewarm personnel by "Old Fighters" and ardent new Nazis.

Chart I.—Organization of Reichspost

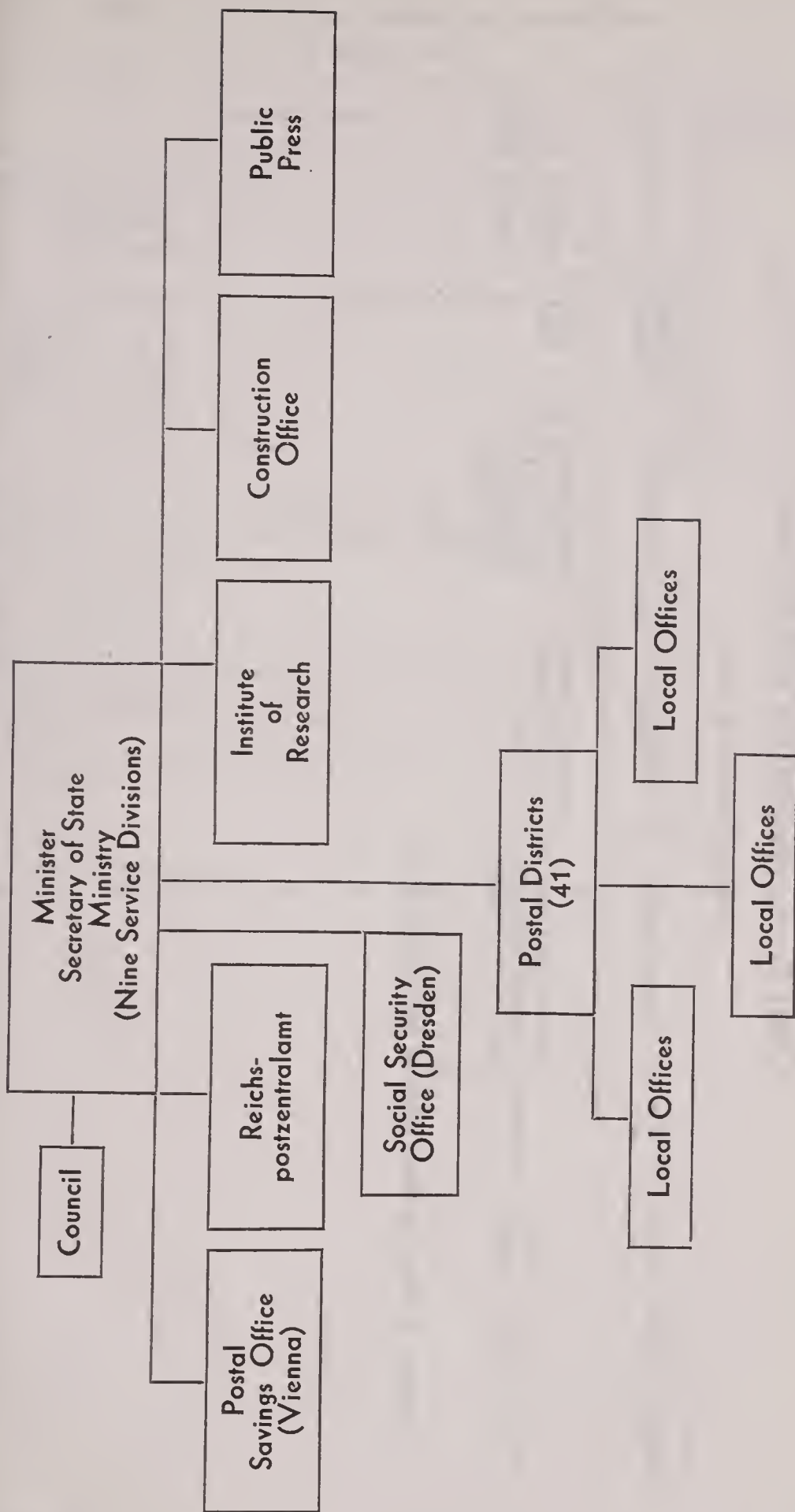


Chart II.—Organization of Reichspost

Minister Secretary of State ¹

Division 1	Division 2	Division 3	Division 4	Central Division	Division 5 ¹	Division 6	Eastern Division	Colonial Division
Mail.	Tele- phone.	Tele- graph.	Personnel.	Routes mail and is general headquar- ters for the Ministry.	Budget, Treasury, Postal Checking, Buildings.	Organization, Ad- ministration, Pur- chases and Sales, Advertisement, Automobiles.	Ost- land.	Foreign Agree- ments and Colonial Matters.

¹ Secretary of State is in direct charge of this service division.

Table 1.¹—Post office receipts and expenditures

(31 March 1938)

Old Reich and Austria	Mill. R.M.	Service percentage
1. Receipts from postal services:		
Mail services:		
Postal fees.....	1, 097. 0±	
Other receipts.....	142. 8	
	1, 239. 8	52. 83
Postal checking system and postal savings bank.....	89. 5	3. 81
Telegraph.....	48. 8	2. 08
Telephone.....	812. 8	34. 64
Radio.....	104. 1	4. 44
Miscellaneous.....	28. 0	1. 10
Transferred items.....	23. 6	1. 01
Total receipts from postal services.....	2, 346. 6	100. 00
2. Expenditures for postal services:		
Special expenses of the single services: (Post, post-check and postal savings systems, telegraph, telephone, radio, television).....	269. 5	11. 65
General expenses:		
Personnel.....	1, 431. 7	61. 88
Equipment and miscellaneous.....	127. 6	5. 51
Capital and interest.....	31. 8	1. 37
Depreciation, general costs, outstanding debts.....	265. 3	11. 47
Transferred items.....	23. 6	1. 02
Paid into account of the Reich.....	164. 3	7. 10
Total expenditures for postal services.....	2, 313. 8	100. 00
Profits.....	32. 8	-----
Total.....	2, 346. 6	-----

¹ Tables are taken from *Deutsche Reichspost, Verwaltungsbericht über das Rechnungsjahr (1938)*.

Fiscal year 1938 (31 March 1939)

Assets		Liabilities	
	R.M. Rpf.		R.M. Rpf.
1. Land:		1. Long-term funded debt:	
Balance last year.....	278,321,055.00	Balance last year.....	454,965,233.81
Additions.....	14,899,903.00	Additions.....	72,789,581.73
Increase value.....	293,220,958.00		527,754,815.54
	783,520.00		
2. Buildings:		2. Share in old Reich debt:	
Balance last year.....	515,287,260.00	Balance last year.....	10,295,853.00
Additions.....	45,522,030.00	Deductions.....	304,829.00
Depreciation.....	560,809,290.00		9,991,024.00
	12,109,936.00		
3. Equipment:		3. Mortgages, loans:	
Balance last year.....	11,699,338.00	Balance last year.....	682,695,000.57
Additions.....	4,898,181.00	Deductions.....	27,389,000.40
Depreciation.....	16,597,519.00		655,306,000.17
	2,551,494.00		
4. Facilities for P. O. services:		4. Indemnities to Bavaria & Wurttemberg for the transfer of their P. & T. to the Reich:	
Balance last year.....	6,801,004.00	Balance last year.....	91,585,682.00
Additions.....	1,206,720.00	Deductions.....	3,871,318.00
Depreciation.....	8,007,724.00		
	1,216,083.00		
5. Transport:		5. Advanced from postal checking system:	
Balance last year.....	107,247,172.00	Balance last year.....	36,500,000.00
Additions.....	69,242,240.00	Additions.....	79,514,449.68
			87,714,364.00

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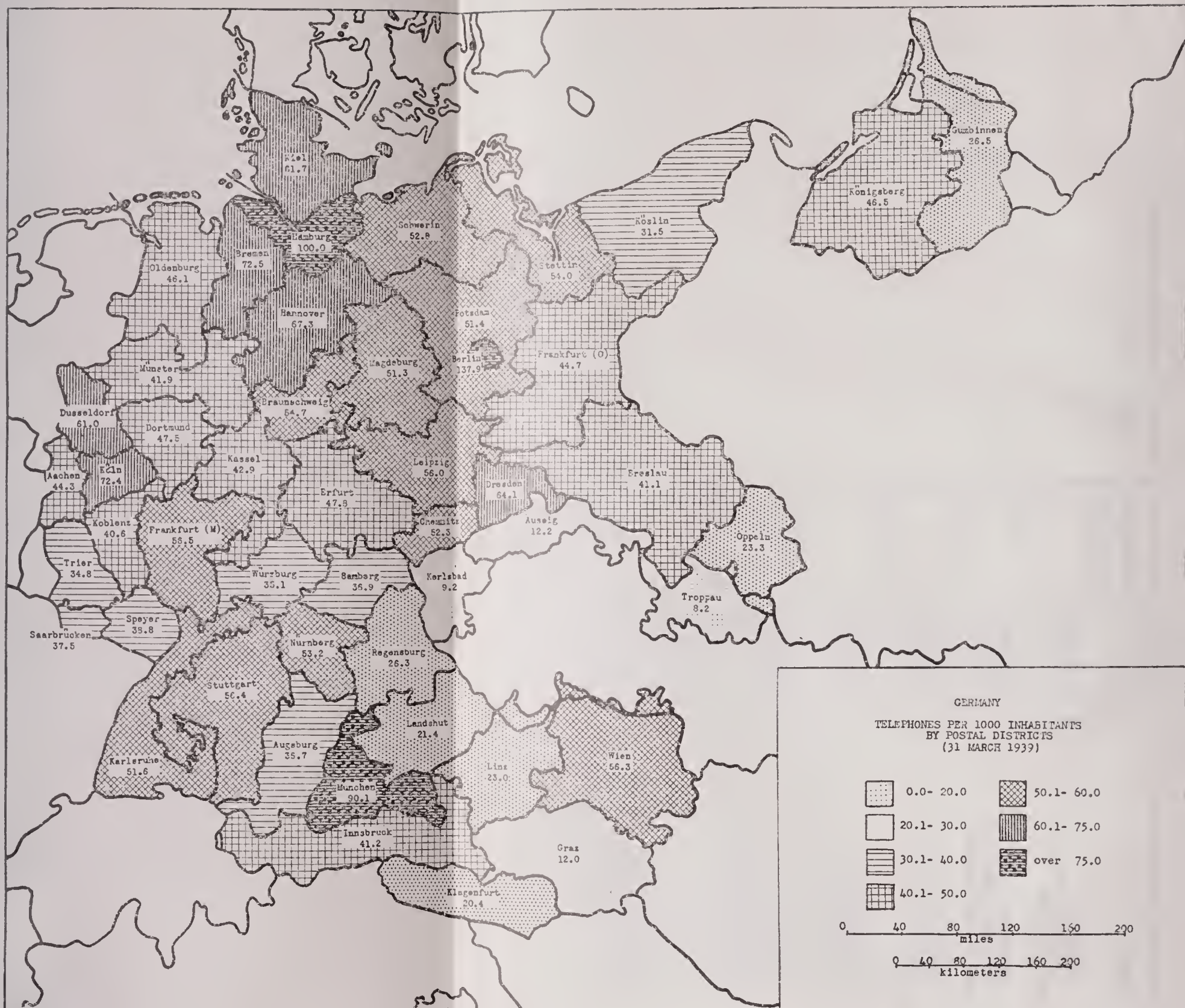


Table 3.—Personnel of the Reichspost

(31 March 1939)

	1939		1938	
	Male	Female	Male	Female
1. Beamter in main post offices.....	213, 821	35, 341	190, 385	30, 690
2. <i>Beamter</i> in reserve (<i>Wartsstand</i>), active Beamter from other admin- istrations.....	234	36	7	-----
Total of 1 and 2.....	214, 055	35, 377	190, 392	30, 690
3. Fully occupies employees, not <i>Beamter</i> :				
a. Salaried employees.....	7, 867	33, 663	3, 178	18, 525
b. Postal wage-earning employees (except those below in c).....	96, 232	3, 883	64, 968	2, 730
c. Manual laborers, workers and motorbus drivers in tele- graph construction office.....	391, 077		310, 483	
d. Part-time workers (not reck- oned with full-time workers).....	34, 492		30, 366	
Total of 1 to 3.....	13, 387		11, 591	
4. <i>Beamter</i> in secondary offices:	438, 966		352, 440	
a. Postal agents.....		12, 484		10, 087
b. Rural post office officials.....		27, 204		25, 852
c. Rural delivery office officials.....		6, 008		6, 730
Total of 4.....		45, 696		42, 669
5. Prospective employees:				
a. For higher offices in T. & T. maintenance.....		283		298
b. For higher offices in services.....		44		58
c. For higher offices in construction services.....		8		8
6. Employees in experimental service.....		449		333
7. Prospective employees for radio serv- ices.....		157		28
8. Young postal messengers.....		1, 056		1, 066
9. Apprentices:				
a. In postal motorbus workshops.....		268		170
b. In telegraph construction.....		1, 377		803
c. In higher mechanics.....		22		17
Total 1 to 9.....		488, 516		397, 890

B. Telephone Service.

1. **Extent and Development.**—(See table 4.) The German telephone service, with respect to equipment and personnel, is one of the best in the world. Government ownership and management have provided standardized equipment and qualified employees, have subsidized technical research, and have made possible relatively uniform distribution of networks.

a. **Central and Station.**—At the end of June 1939 there were 4,226,504 telephones in Germany, approximately 5.28 per 100 population.

(See table 5 and map 1 for telephone distribution.) It should be remembered that the German Reichspost regarded the telephone as a luxury for the poor, and made no attempt to "sell" it to the public. Hence the relative usefulness of the telephone was somewhat reduced.

Country	Date of statistics	Number of telephones	Telephones per 100 population
United States-----	1/1/41	21, 928, 182	16. 50
Sweden-----	1/1/41	908, 653	14. 20
New Zealand-----	31/3/41	28, 346	13. 90
Canada-----	1/1/41	1, 461, 038	12. 78
Denmark-----	1/1/40	459, 757	11. 95
Switzerland-----	1/1/41	474, 033	11. 25
Australia-----	1/1/41	704, 868	9. 97
Hawaii-----	1/1/41	41, 568	9. 64
Norway-----	30/6/39	250, 000	8. 52
Great Britain and Northern Ireland---	31/3/41	3, 348, 000	7. 00
Germany (including Austria and Sudetenland)-----	30/6/36	4, 226, 504	5. 28

In Germany the Reichspost performs the same services as the telephone companies in the United States. The post office provides the instrument and installs it for a certain monthly fee. However, large business corporations or government offices who wish to have internal telephone connections and/or more than one public exchange line can buy complete telephone equipment from a private telephone manufacturing firm, although they still are required to pay the post office a monthly fee for each of their public exchange lines. These private installations can be classified as follows: (1) Private Exchange (PX), used for purely internal or house traffic; (2) Private Branch Exchange (PBX), used for both internal traffic and connection with a public network; if completely automatic this type of PBX is known as a Private Automatic Branch Exchange (PABX).

Three of the most common types of PBX are *Reihenschaltungs Apparat*—a series-connected house system with a circuit so arranged that all exchange lines run through the extensions in succession. They are operated by a button signal and have limited dial digits. A switch is used for transferring from internal to outside connections. The 3 types are: (1) the Reiha system (*Reihenschalt-Hausanlage*), consisting of 1 exchange line and 1 to 6 house extensions; (2) the Reipos system (*Reihenschalt-Postanlage*), with a capacity of 1 to 4 exchange lines and 16 house extensions; and (3) the Reiaut system (*Reihenschaltanlage mit automatischer Hauszentrale*), with a PABX and unlimited house extensions.

* Although the United States represents complete private ownership in comparison to Sweden's almost complete government ownership, both have high percentages of telephones per population because both made a definite effort to "sell" to the public, whereas the German Reichspost has always maintained a "hands off" policy.

The tendency in all of these installations has been toward complete automatization, although operator intervention is always possible for special calls.

The most important tendency in German telephony is the increasing automatization of networks, and it is estimated that 90 percent of the existing 4,226,504 telephones have dial service. Berlin and numerous other large cities have been fully converted to dial operation. By providing dial networks for operators as well as extending the subscriber dial networks, the system has been further developed to include short-distance dial toll service. The one exception in this regard is Berlin, where all originating dial toll calls—even to relatively near suburban points—require the assistance of the operator. Elsewhere general 40-km. direct subscriber-to-subscriber service has already been established.

Dial toll charges are recorded on subscribers' meters by multiple registration on a time and zone basis. Distances of over 70 km. would require more complex automatic ticket-writing equipment to take care of the variation in local and long-distance tariffs and to provide a detailed record of each separate call. There has been some experimentation, but the system is not ready for general use. The immediate objective seems to be to provide automatization for all traffic involving distances of less than 70 km. Public stations, both manual and dial, are equipped with prepayment apparatus, with four slots to receive coins of 5, 10, 50 *Reichspfennig* and 1 *Reichsmark*, instead of the multiple registration system.

One additional step in automatization is the multiparty telephone dial service. There are two methods of connection, both of which were originally manual operations. The most common is similar to the American party-line service where 2 to 10 subscribers' stations of moderate traffic requirements are connected to a so-called "community switch," allowing them to be connected to the exchange through a single junction line. The only known dial exchange of this type is located in Magdeburg. In more sparsely populated districts another method of connection has been developed, by which the scattered telephone stations are connected to a common pair of wires running from one subscriber's station to another. These party-lines are largely used in telephone networks of important administrators, along canals and railways, etc., such party-lines when employed on railways are known as "omnibus lines." Party-line service, however, whether manual or automatic, has not been encouraged in Germany because of the possible detriment to the single-party telephone system and in the interest of simplification from a technical standpoint.

b. Line.—Line has not been developed as extensively as in the United States, and long-distance calls almost always involve waiting. This

accounts for the different rates based on the classification of calls as well as for the various categories of service through automatic and manual offices. Direct automatic connections for distances of over 40 km. have not yet been established, and such calls usually require operator completion. Manual services include interurban direct service and interurban service proper. The latter type of connection through interurban offices is further classified as either accelerated service or delayed service (corresponding to American long-distance when the operator calls back as soon as the connection is completed). The direct and accelerated services are more expensive. There are also increased rates for such special calls as *Blitzgespräche* and urgent calls, and for conference, press, leased time, market, and radio connections, and for appointment and government calls. (See table 6.)

Some of the main railroad lines have installed telephones on the cars, to be used while the train is in motion. For this service the railroad telegraph wire running along the tracks is used and the small distance between the wire and the antennae on the railroad car is bridged by wireless. This is not to be confused with the railroad station telephone party-lines known as "omnibus lines."

The following table shows the length in *miles* of German telephone and telegraph line as of 31 March 1939.

Open wire-----	192, 519
Aerial cable-----	8, 350
Underground cable-----	73, 976
Submarine cable-----	3, 506
Total line-----	278, 351

Cable lines are being laid in Germany constantly. These are partly new lines to replace overhead wires and partly modernization or enlargement of existing cables. To reduce the initial cost of circuits and accelerate long-distance connections there has been considerable development of superimposed carrier channels on light- or very light-loaded cable facilities.⁵ The earliest and probably still the most common type is the German L-system (one additional carrier channel superimposed on light-loaded 9-mm. cable with circuits having a critical frequency of 7,000 cycles, repeater spacing 70 km.). Three others which are likely to supersede the L-system for economic reasons are: (1) the German S-system (three additional carrier channels superimposed on very light-loaded 1.4-mm. cable with circuits having a critical frequency of 20,000 cycles, repeater spacing 70 km.); (2) the German U-system (15 carrier channels having a total band width of 3,000 cycles superimposed on nonloaded 1.4-mm. spiral quad cable circuits, repeater spacing 35 km.); and (3) the German B-sys-

⁵ Carrier channels have also been used on 3-mm. open-wire lines in the German T-system (3 superimposed carrier channels) and the MG-system (18 superimposed carrier channels).

tem (a broad-band cable with 5-mm. inner conductor and an outer diameter of the outer conductor of 18 mm. which will provide 200 message channels having a total band width of 3,000 cycles when it is operated at a maximum frequency of one million cycles and, if operated at a higher maximum frequency of from one to four megacycles, will provide one or two additional television circuits in the two directions).

c. Equipment and Technique.—The German automatic switching equipment is standardized on the Siemens and Halske modification of the Strowger system. This consists of a step-by-step arrangement using the two-motion switch (up and around) operated by electromagnets and giving 100 or 200 outlets per switch. It uses the impulses from the dial directly for selection.

Independent of the above system, Siemens and Halske developed a cheaper automatic telephone system, called a *Landzentralen* or "Rural System." Most of Bavaria and many rural parts of Germany use the *Landzentralen*.

In general, A-C dialing (50 cycles) is now used on all completely automatic toll trunk lines involving not more than one repeater, and voice-frequency dialing where more than one repeater is required. D-C supervision is sometimes combined with A-C or voice-frequency dialing arrangements to control disconnection and assure accurate charging.

The new switchboards used in dial toll service are of the automatic call distributing cordless type. These cordless boards are equipped with 5 links and with sequence-storing circuits. The same position will handle all types of calls, but for traffic reasons outgoing calls are not handled on the same positions as terminating and through calls, except under overload conditions. When all positions are busy, incoming calls are held on the sequence-storing circuits and released to available lines in the order of origination.

2. Plans for Rebuilding.—Extensive plans for reconstruction of the telephone network were evolved by the Germans before the war, and a plan was developed (OSS Map A 3028 RA) for complete automatization of the German system. This plan has been developed in considerable detail by Max Langer, technical director of Siemens and Halske AG, and the ultimate formation of a national dialing network is already evident in the present trunking arrangements and numbering plans. Consolidation would also be simplified by the standardized equipment now in use.

Under this national plan the various types of offices involved would be: local exchanges, long-distance centrals (toll offices), provincial distributional centers (toll subcenters), and the regional distributional centers (toll centers). Thus, with not more than five series of connec-

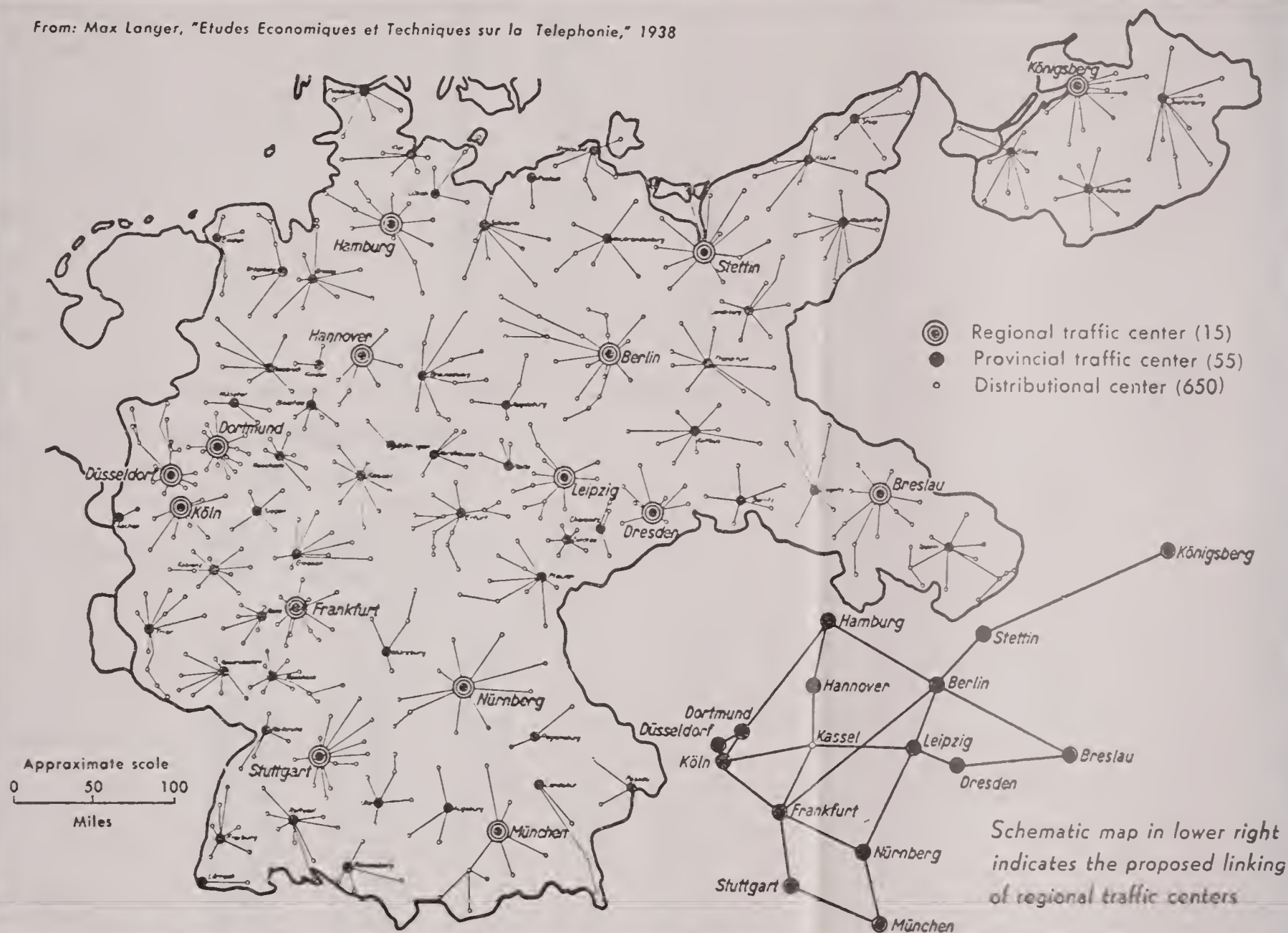
tions and their corresponding dial-tone signals involved, the subscriber could dial directly to any station in the country. The limitation of number combinations, especially in exchange prefixes, constitutes a major problem in controlling the total number of exchange areas. Further complication is apparent in such cities as Berlin, where an elaborate local dialing network was set up with a prefix code conflicting with the present interurban number combinations. Aside from these alterations, the national automatization plan would not require any equipment not already invented and in use, though it would necessitate considerable expansion of Germany's present long-distance lines. Although the location of installations remains unknown, it is reported that the plan has been completed in one region and that more than fifty cities can be connected without the intervention of an operator.

Table 4.—Telephone offices

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Main telephone offices (<i>Fernsprechämter</i>)	Communal public telephone offices (<i>Gemeindliche Öffentliche Sprechstellen</i>)	Total telephone offices	Telephone exchanges (<i>Fernsprechvermittlungstellen</i>)
Aachen	1	137	138	53
Augsburg		786	786	215
Aussig	1	13	14	275
Bamberg		745	745	103
Berlin	8	9	17	80
Braunschweig	1	98	99	93
Bremen	1	435	436	136
Breslau	1	724	725	403
Chemnitz	3	119	122	96
Dortmund	4	330	334	124
Dresden	1	154	155	126
Düsseldorf	6	345	351	112
Erfurt	1	347	348	210
Frankfurt (Main)	3	121	124	245
Frankfurt (Oder)		449	449	284
Graz	1	139	140	348
Gumbinnen		913	913	210
Hamburg	3	167	170	133
Hannover	1	364	365	183
Innsbruck	2	506	506	406
Karlsbad		105	105	40
Karlsruhe (Baden)	3	405	406	289
Kassel	1	162	163	159
Kiel	1	378	379	210
Klagenfurt	1	127	128	207
Koblenz	1	367	368	89
Köln	2	473	475	66
Königsberg	1	816	817	316
Köslin		339	339	236
Landshut (Bay)		952	952	192
Leipzig	2	401	403	192
Linz (Donau)	1	36	37	346
Magdeburg	1	172	173	199
München	1	540	541	162

From: Max Langer, "Etudes Economiques et Techniques sur la Telephonie," 1938



PLAN FOR AUTOMATIZATION OF GERMAN INTERURBAN TELEPHONE LINES
(Proposed by Max Langer of Siemens and Halske A.G.)



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1914

Table 4.—Telephone offices—Continued

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Main telephone office (<i>Fernsprech- amter</i>)	Communal public telephone offices (<i>Gemeind- liche Öffentliche Sprechstellen</i>)	Total tele- phone offices	Telephone ex- changes (<i>Fern- sprechvermitt- lungstellen</i>)
Münster (Westf).....	2	389	391	229
Nürnberg.....	1	694	695	131
Oldenburg (Oldb).....		395	395	215
Oppeln.....	1	210	211	156
Potsdam.....		370	370	234
Regensburg.....		1,041	1,041	160
Saarbrücken.....	1	39	40	40
Schwerin (Meckl).....		404	404	198
Speyer.....		71	71	160
Stettin.....	1	567	568	220
Stuttgart.....	1	664	665	295
Trier.....		157	157	92
Troppau.....		39	39	257
Wien.....	3	308	311	950
Würzburg.....		189	189	135
Total.....	63	17,711	17,774	10,007

¹ Villages (communes) which have only one telephone located in a central office for the entire community.

Table 5.—Telephone stations

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Subscribers' telephones (<i>Hauptan- schlüsse</i>)	Of which automatic (<i>mit Wähl- vermittlung</i>)	Telephone extensions (<i>Nebenan- schlüsse</i>)	Public telephones (<i>Öffentliche Sprech- stellen</i>)	Total tele- phones
Aachen.....	18,839	18,146	12,983	947	32,769
Augsburg.....	22,205	11,148	14,682	2,184	39,071
Aussig.....	12,722	5,071	5,066	310	18,098
Bamberg.....	16,091	5,042	10,883	1,553	28,527
Berlin.....	343,260	343,260	252,947	5,710	601,917
Braunschweig.....	27,788	18,764	19,722	1,282	48,792
Bremen.....	37,063	29,888	25,883	1,453	64,399
Breslau.....	73,323	60,772	55,653	4,495	133,471
Chemnitz.....	54,309	46,335	45,583	1,430	101,322
Dortmund.....	69,016	66,508	52,842	2,380	124,238
Dresden.....	67,370	63,515	53,052	2,155	122,577
Düsseldorf.....	138,102	134,289	110,277	4,109	252,488
Erfurt.....	56,004	42,646	43,112	2,751	101,867
Frankfurt (Main).....	89,637	78,281	67,182	3,208	160,027
Frankfurt (Oder).....	32,609	27,222	22,442	2,087	57,138
Graz.....	8,556	7,662	4,324	600	13,480
Gumbinnen.....	15,103	11,557	7,218	1,675	23,996
Hamburg.....	132,490	130,784	87,995	3,102	223,587
Hannover.....	51,080	45,472	33,446	2,201	86,727
Innsbruck.....	16,995	15,579	12,092	521	29,608
Karlsbad.....	5,541	2,478	2,298	148	7,987
Karlsruhe (Baden).....	73,891	57,234	53,088	3,078	130,057
Kassel.....	26,765	26,200	18,669	1,804	47,238
Kiel.....	43,621	26,890	24,292	2,121	70,034
Klagenfurt.....	5,316	4,539	3,225	437	8,978
Koblenz.....	18,126	16,135	12,058	1,398	31,582

Table 5.—Telephone stations—Continued

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Subscribers' telephones (<i>Hauptanschlüsse</i>)	Of which automatic (<i>mit Wahlvermittlung</i>)	Telephone extensions (<i>Nebenanschlüsse</i>)	Public telephones (<i>Öffentliche Sprechstellen</i>)	Total telephones
Köln	62,318	61,581	48,015	2,129	112,743
Königsberg (Pr)	42,543	39,280	29,865	2,311	74,000
Köslin	16,055	15,250	8,908	1,531	26,744
Landshut (Bay)	11,748	4,173	6,006	1,621	19,548
Leipzig	90,725	87,598	73,787	3,721	168,926
Linz (Donau)	14,343	13,056	8,707	447	23,553
Magdeburg	49,398	38,201	34,886	1,872	86,057
München	68,481	62,543	52,136	2,125	122,285
Münster	67,858	55,551	43,360	2,289	113,050
Nürnberg	29,663	25,581	25,002	1,838	56,084
Oldenburg (Oldb)	36,142	30,171	19,439	1,799	57,551
Oppeln	18,207	16,992	16,443	1,356	36,798
Potsdam	42,331	37,599	24,495	2,280	69,705
Regensburg	12,264	5,511	8,097	1,649	22,521
Saarbrücken	16,380	12,256	13,757	525	30,868
Schwerin	25,157	20,027	16,043	1,244	42,471
Speyer	21,283	11,461	16,414	871	38,969
Stettin	36,051	35,697	28,575	1,909	66,182
Stuttgart	82,014	79,864	66,763	3,751	152,388
Trier	11,716	11,702	6,270	1,121	19,809
Troppau	5,205	40	1,138	328	6,671
Wien	138,712	121,038	72,200	2,833	213,783
Würzburg	15,593	8,732	11,361	1,220	28,906
Total	2,369,979	2,090,321	1,682,601	93,909	4,146,710

Table 6.—Telephone traffic

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Local calls (<i>Ortsgespräche</i>)	Long-distance calls (<i>Ferngespräche</i>)	Total telephone calls
	<i>Millions</i>	<i>Millions</i>	<i>Millions</i>
Aachen	20.1	4.6	24.7
Augsburg	17.8	4.3	22.1
Aussig	2.1	.4	2.5
Bamberg	11.6	2.9	14.5
Berlin	560.1	11.1	571.2
Braunschweig	27.9	5.5	33.4
Bremen	46.0	5.1	51.1
Breslau	83.1	12.8	95.9
Chemnitz	59.4	10.2	69.6
Dortmund	84.4	18.1	102.5
Dresden	81.2	9.5	90.7
Düsseldorf	198.9	27.0	225.9
Erfurt	52.5	10.7	63.2
Frankfurt (Main)	103.9	15.3	119.2
Frankfurt (Oder)	26.2	6.9	33.1
Graz		1.6	1.6
Gumbinnen	11.4	3.3	14.7
Hamburg	200.9	9.0	209.9
Hannover	57.9	7.9	65.8
Innsbruck		1.2	1.2

Table 6.—Telephone traffic—Continued

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Local calls (<i>Ortsgespräche</i>)	Long-distance calls (<i>Ferngespräche</i>)	Total telephone calls
	Millions	Millions	Millions
Karlsbad.....	2. 4	. 3	2. 7
Karlsruhe (Baden).....	76. 6	14. 4	91. 0
Kassel.....	27. 8	5. 1	32. 9
Kiel.....	41. 7	7. 5	49. 2
Klagenfurt.....		. 9	. 9
Koblenz.....	16. 1	5. 0	21. 1
Köln.....	88. 4	9. 8	98. 2
Königsberg (Pr).....	48. 8	7. 9	56. 7
Köslin.....	11. 9	4. 1	16. 0
Landshut (Bay).....	6. 9	3. 0	9. 9
Leipzig.....	103. 9	13. 9	117. 8
Linz (Donau).....		2. 2	2. 2
Magdeburg.....	47. 9	8. 8	56. 7
München.....	85. 5	7. 8	93. 3
Münster (Westf).....	63. 5	15. 0	78. 5
Nürnberg.....	38. 7	4. 3	43. 0
Oldenburg (Oldb).....	31. 4	7. 5	38. 9
Oppeln.....	18. 2	4. 2	22. 4
Potsdam.....	29. 7	10. 1	39. 8
Regensburg.....	8. 9	3. 0	11. 9
Saarbrücken.....	25. 3	3. 3	28. 6
Schwerin (Meckl).....	20. 7	5. 7	26. 4
Speyer.....	18. 1	6. 3	24. 4
Stettin.....	40. 6	7. 3	47. 9
Stuttgart.....	86. 8	14. 8	101. 6
Trier.....	11. 1	3. 5	14. 6
Troppau.....	14. 6	. 5	15. 1
Wien.....		5. 8	5. 8
Würzburg.....	12. 7	3. 6	16. 3
Total.....	2, 623. 6	353. 0	2, 976. 6

Table 6a.—Telephone stations in the larger local networks

(31 March 1939)

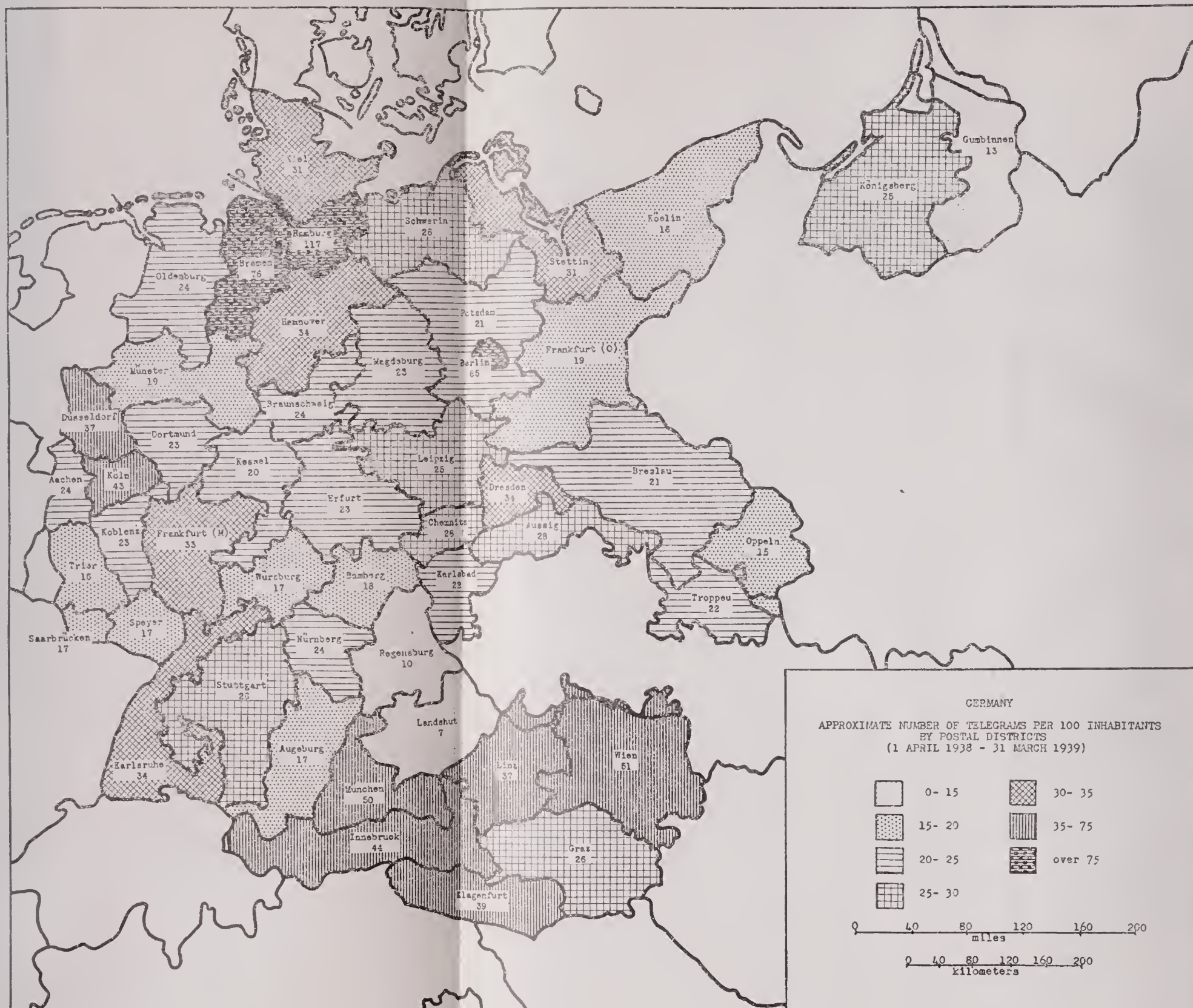
Local networks in order of population	Popula- tion of network area (31 March 1939)	Subscrib- ers' tele- phones (<i>Hauptan- schlüsse</i>)	Exten- sions (<i>Neben- anschlüsse</i>)	Public telephones (<i>Öffentliche Sprech- stellen</i>)	Total tele- phones	Sta- tions per 100 inhabi- tants	Rank according to tele- phone density
Berlin.....	4, 338, 535	341, 883	252, 383	5, 645	599, 911	13. 83	1
Wien.....	1, 874, 130	121, 706	58, 161	298	180, 165	9. 61	11
Hamburg.....	1, 723, 763	110, 719	76, 080	2, 062	188, 861	10. 96	4
München.....	866, 000	51, 816	44, 398	1, 001	97, 215	11. 23	3
Dresden.....	820, 508	40, 031	34, 730	808	75, 569	9. 21	13
Köln.....	770, 606	40, 007	34, 494	892	75, 393	9. 78	8
Leipzig.....	767, 354	38, 729	34, 620	610	73, 959	9. 64	9
Essen.....	671, 571	18, 915	17, 347	481	36, 743	5. 47	54
Frankfurt.....	647, 259	35, 782	31, 722	608	68, 112	10. 52	6
(Main) Offenbach.....							
Breslau.....	622, 797	23, 800	23, 734	669	48, 203	7. 74	31
Dortmund.....	584, 862	14, 724	13, 898	323	28, 945	4. 95	57
Nürnberg/Fürth.....	563, 688	21, 783	20, 338	520	42, 641	7. 56	37
Stuttgart.....	530, 844	30, 777	30, 433	486	61, 696	11. 62	2

Table 6a.—Telephone stations in the larger local networks—Continued

(31 March 1939)

Local networks in order of population	Popula- tion of network area (31 March 1939)	Subscrib- ers' tele- phones (Hauptan- schlüsse)	Exten- sions (Neben- anschlüsse)	Public telephones (Öffentliche Sprech- stellen)	Total tele- phones	Sta- tions per 100 inhabit- ants	Rank accord- ing to tele- phone density
Düsseldorf.....	527,013	29,058	27,169	803	57,030	10.82	
Duisburg.....	518,700	12,363	11,723	307	24,393	4.70	5
Hannover.....	495,130	24,413	20,501	335	45,249	9.14	1
Wuppertal.....	408,602	17,607	13,121	416	31,144	7.62	3
Bremen.....	400,562	20,726	17,563	256	38,545	9.62	1
Chemnitz.....	400,148	15,403	15,097	267	30,767	7.6889	3
Magdeburg.....	352,485	14,621	13,022	251	27,894	7.9135	2
Königsberg (Pr.).....	350,232	15,569	16,249	287	32,105	9.17	1
Gelsenkirchen.....	332,577	5,246	4,610	83	9,939	2.99	6
Oberhausen/Mülheim.....	331,775	6,793	5,619	156	12,568	3.79	6
Saarbrücken.....	316,342	7,331	7,438	142	14,911	4.71	5
Bochum.....	312,903	6,566	6,597	137	13,300	4.25	6
Stettin.....	306,234	12,047	15,331	261	27,639	9.03	1
Mannheim.....	285,440	12,784	12,299	178	25,261	8.35	2
Kiel.....	277,028	9,654	9,864	233	19,751	7.13	4
Halle (Saale).....	241,000	9,341	11,009	195	20,545	8.52	2
Kassel.....	232,022	8,667	8,749	184	17,600	7.59	3
M. Gladbach.....	225,449	6,941	4,996	217	12,154	5.39	5
Augsburg.....	211,468	6,092	6,544	167	12,803	6.05	5
Karlsruhe (Baden).....	204,908	8,436	9,659	176	18,271	8.92	2
Graz.....	200,000	8,274	4,170	45	12,489	6.24	4
Krefeld/Uerdingen.....	196,266	8,291	6,633	166	15,090	7.6885	3
Braunschweig.....	195,925	8,014	8,135	144	16,293	8.32	2
Aachen.....	190,740	7,977	6,776	193	14,946	7.87	3
Bielefeld.....	178,891	6,714	6,797	103	13,614	7.61	3
Erfurt.....	174,746	7,165	7,143	127	14,435	8.26	2
Lübeck.....	167,053	6,012	5,033	116	11,161	6.68	4
Wiesbaden.....	166,925	8,116	7,431	169	15,716	9.42	1
Hagen (Westf).....	165,542	5,589	4,826	103	10,518	6.35	4
Mainz.....	165,367	5,204	4,985	107	10,296	6.23	4
Zwickau (Sachs).....	159,011	4,217	4,555	67	8,839	5.56	5
Hinderburg (Oberschles).....	152,501	1,351	1,403	36	2,790	1.83	6
Beuthen (Oberschles).....	147,556	2,233	2,593	39	4,865	3.30	6
Münster (Westf).....	145,105	6,690	8,248	106	15,044	10.37	7
Solingen.....	143,063	5,939	4,185	143	10,267	7.18	4
Bonn.....	142,310	5,861	4,643	102	10,606	7.45	3
Ludwigshafen (Rhein).....	142,000	3,792	4,217	55	8,064	5.68	5
Linz (Donau).....	141,400	5,766	1,208	43	7,017	4.96	5
Recklinabausen.....	140,294	2,260	1,937	53	4,250	3.03	6
Gleiwitz.....	131,049	2,445	2,790	55	5,290	4.04	6
Potsdam/Babelsberg.....	121,746	6,129	4,364	122	10,615	8.72	2
Plauen (Vogtl).....	121,200	4,453	4,424	89	8,966	7.40	3
Dessau.....	119,369	3,394	3,612	57	7,063	5.92	5
Freiburg (Breisgau).....	117,159	5,868	4,614	105	10,587	9.04	1
Waldenburg (Schles).....	116,902	1,801	2,342	62	4,205	3.60	6
Osnabrück.....	113,513	4,138	3,720	51	7,909	6.97	4
Bremerhaven Wesermünde.....	111,916	3,968	4,801	88	8,857	7.914	2
Rostock, Seestadt.....	111,285	3,908	3,864	53	7,825	7.03	4
Wilhelmshaven.....	111,000	2,279	2,793	39	5,111	4.61	6
Remscheid.....	110,500	4,564	3,345	161	8,070	7.30	4
Hamm (Westf).....	109,791	2,508	2,188	71	4,767	4.34	6
Würzburg.....	107,509	4,787	4,808	100	9,695	9.02	1
Koblenz.....	106,200	3,980	4,560	91	8,631	8.13	2
Görlitz.....	106,071	3,253	3,227	74	6,554	6.18	4
Darmstadt.....	102,235	4,591	4,550	73	9,214	9.01	1
Pforzheim.....	101,342	4,684	3,554	50	8,288	8.18	2





C. Telegraph and Miscellaneous Wire Communications.

1. **Extent.**—(See table 7.) Telegraph lines either form a part of the telephone cables or use overhead wires. (See table in section B-1-a.) In 1938 there were an estimated 684,015 km. of telegraph lines in operation but the trend has been to reassign more and more wires to telephone service. The development of cables for telephone service would provide similar advantages for telegraphic facilities if expansion were needed.

The railroad has its own telegraph system, used for station-to-station communication and communication between important junctions. Recently radiotelegraphy has been developed to allow the exchange of messages while the train is in motion.

The military, fire, and police authorities also have their own telegraph lines, but locational information is lacking. Their equipment is similar to that of the Reichspost.

a. **Special Categories.**—Aside from ordinary telegram service the Reichspost has approved the following special categories: Flash (F) telegrams which have priority over all other private or state telegrams; Luxury (LX) telegrams which are transcribed on luxury forms; Greeting telegrams which are sent at a reduced rate on Easter, Christmas, and New Year's; and Letter telegrams transmitted telegraphically, also sent at a reduced rate to their destination and then handled as ordinary letters. (See map 2 for distribution statistics of telegram traffic.)

b. **Deposit and Distribution.**—Telegrams cannot only be deposited at the windows of telegraph offices or be telephoned in as in the United States, but they can also be mailed to the telegraph office as regular letters, or be transmitted through private teletype networks. Upon arrival they are sent out as soon as possible to the addressee by any of the above methods, or are delivered by special messengers.

2. **Teletype.**—The introduction of the teletype exchange service constitutes the most important telegraphic development in recent years, and will eventually provide direct subscriber-to-subscriber dial communication anywhere within Germany. It should be realized that as teletype replaces ordinary telegraph, an apparent reduction in line used for both does not necessarily mean a reduction in total service, since teletype makes greater use of the same line than does Morse telegraphy. In 1938 the German Reichspost had leased 23,000 km. of telegraph lines for teletype connections. The 1939 statistics give the number of subscribers as 372 within Germany, in addition to connec-

tions with most of the adjacent countries. Teletype dial exchanges are located in the following cities:

Augsburg.	Düsseldorf.	Königsberg.
Berlin.	Erfurt.	Leipzig.
Braunschweig.	Essen.	Linz.
Brunswick.	Frankfurt a. M.	Magdeburg.
Bremen.	Graz.	München.
Breslau.	Hamburg.	Nürnberg.
Chemnitz.	Hannover.	Saarbrücken.
Danzig.	Kattowitz.	Stuttgart.
Dortmund.	Kiel.	Wien.
Dresden.	Köln.	

In addition to these, both the Air Ministry and the army have their own national hook-ups.

The *Reichs Rundfunk Gesellschaft* (RRG) also has its own teletyp system centered in Berlin for the transmission and reception of new broadcasts. In 1942 the network was approximately 7,500 miles long.

The advantages of this type of communication are that it does not require trained technicians for operation, and that immediate reference is available on statistical information, names, etc., when extreme accuracy is necessary or documentary evidence of the message is needed. Furthermore, since the message is printed on the addressee's machine, whether or not his office is open, it is not necessary to take into account the difference in office hours, which are important in the case of very great distances and of international communications.

3. Facsimile or Telephotography Service.—Facsimile service was introduced in Germany in 1927. By 1938 there were 10 public sending stations including Berlin, Munich, Frankfurt a. M., Hamburg, Bremerhaven, Cuxhaven, Königsberg, and Vienna. This established network is supplemented as necessary by special transmitting stations and portable installations. At present there are facilities for sending phototelegrams to all parts of Germany, and international connections are possible with any country equipped to handle telephotography. Certain newspapers have set up their own private lines and can communicate among themselves as well as with all the public services. The German police and the military both have their own lines.

Phototelegrams are generally transmitted on regular telegraph lines, but devices have recently been invented to transmit pictures by wireless. This service is used by the Air Forces to send pictures between planes and the ground. It is important for observation purposes and for the transmission of secret messages which can be written out in code or scrambled by transmission synchronization. Two types of receiving stations are used: a large type mounted on trucks, and a portable type which can be carried by two men.

special wireless station has also been constructed at Nauen for the transmission of pictures overseas.

4. Miscellaneous Wire Signals.

a. Hellschreiber.—One special development of the teletypewriter has been the invention of a field or portable teleprinter known as a *Hellschreiber*. It is essentially a military device and is operated on the same principle as the radio *Hellschreiber* described in section D-2.

b. Telautograph.—There are no known telautograph installations in Germany.

5. Submarine Cables.—For general statistics and locational data on submarine cables, see the CAD Handbook on Germany, Section 12, "Communications," pages 12-13, and table 4, pages 14-15-16. German overseas cable service is centralized in the telegraph office at Emden, but there were also direct connections between Berlin and New York and between Hamburg and London.

Table 7.—Telegraph statistics

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Main telegraph offices (<i>Telegraphenämter</i>)	Branch telegraph offices (<i>Zweigtelegraphenämter</i>)	Rural telegraph offices (<i>Telegraphenhilfstellen</i>)	Total telegraph offices	Telegraph construction offices (<i>Telegraphenbauämter</i>)	Telegrams in thousands
Aachen			5	5	1	183.1
Augsburg					1	181.1
Aussig					2	72.0
Bamberg					1	140.7
Berlin	1	9		10	3	3,684.2
Braunschweig					2	216.2
Bremen		2		2	1	675.0
Breslau	1		15	16	4	699.1
Chemnitz			1	1	2	512.2
Dortmund		1		1	3	602.0
Dresden	1	1		2	2	656.5
Dusseldorf					4	1,515.2
Erfurt			17	17	4	507.6
Frankfurt (M)	1	1		2	4	935.8
Frankfurt (O)					3	287.8
Graz					1	299.3
Gumbinnen					1	119.3
Hamburg	1	3	7	11	3	2,625.7
Hannover			4	4	2	439.8
Innsbruck					1	320.5
Karlsbad					1	32.4
Karlsruhe (Baden)			40	40	4	877.5
Kassel			27	27	2	228.9
Kiel			3	3	2	356.3
Klagenfurt					1	170.8
Koblenz			69	69	2	183.3
Köln	1			1	3	675.5
Königsberg			18	18	2	401.4
Köslin			38	38	2	141.0
Landshut (Bay)					1	75.5
Leipzig	1			1	4	765.3
Lins (Donsu)	1			1	1	377.7
Magdeburg			3	3	2	381.6

Table 7.—Telegraph statistics—Continued

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	Main telegraph offices (<i>Telegraphenämter</i>)	Branch telegraph offices (<i>Zweigtelegraphenämter</i>)	Rural telegraph offices (<i>Telegraphenhilfstellen</i>)	Total telegraph offices	Telegraph construction offices (<i>Telegraphenbauämter</i>)	Telegram in thousands
München	1		12	13	2	686.
Münster (Westf)					3	535.
Nürnberg					1	265.
Oldenburg (Oldb)	2		29	31	2	309.
Oppeln			6	6	1	233.
Potsdam			25	25	3	298.
Regensburg					1	88.
Saarbrücken			7	7	1	145.
Schwerin			1	1	2	210.
Speyer					1	178.
Stettin					2	393.
Stuttgart			291	291	4	725.
Trier			28	28	1	88.
Troppan					1	30.
Wien	1			1	5	1, 955.
Warzburg					1	142.
Total	12	17	646	675	103	25, 629.

D. Radio.

The development of German radio is advanced and extensive. The principal German stations are shown in OSS Map 3001.

1. Broadcasting (BC).—An extensive discussion of German broadcasting from both the propaganda and the administrative viewpoint may be found in the CAD Handbook on Germany, Section XII.

German broadcasting is under the control of the *Reichs Rundfunkgesellschaft* (RRG), a government corporation under the Propaganda Ministry. The Reichspost supervises technical matters and maintain the equipment. It also collects the receiving license fees for the RRG.

Broadcasting stations are of several types. The largest German station is the *Deutschlandsender*, a long-wave national station which can be heard in all parts of Germany. Various *Landessender* broadcast regionally, while low-power stations have a local audience. A short-wave station at Zeesen relays the regular programs. Table 1 lists the long and medium wave German stations.

The Nazi government has expended considerable effort to increase the radio audience to the maximum and at the same time make sure that Germans were unable to listen to foreign broadcasts. This has been accomplished by two means: (1) the widespread sale of *Volksempfänger* and *Kleinempfänger* (small, cheap, low-powered, 2 tube sets) and (2) the construction of many auxiliary stations for simultaneous transmission at the same frequency in the same phase. Thus Germany has been covered with a network of small stations, and



no subscriber need have a powerful set in order to hear German stations. Table 9 lists the number of radio receivers in Germany. (For density of receivers see Map 5.)

2. Point-to-Point Communication (FX).—The German public point-to-point wireless communication system was developed entirely for international service, because it was felt that wire communication was adequate for the interval needs of a country of Germany's size. The Nazis have tried to reduce European fixed-point radio communications, replacing them with wire circuits whenever possible, and thus freeing frequencies for aeronautical and military use. The following table shows the radio telephonic communications maintained by Germany in 1938.

Radio Telephonic Circuits in Germany, 1938

Berlin to:

Bangkok.	Lima.	Rio de Janeiro.
Bogota.	Lisbon.	Tokio.
Buenos Aires.	Manila.	
Cairo.	Maracaibo.	

The transmitter at Norddeich (receiver at Utlandshörn) maintained telephonic communication with German ocean liners.

Radio telegraphic communication was maintained with the cities listed in the following tables.

Points in Telegraphic Communication With Berlin in 1938

Bangkok.	Istanbul.	Oslo.
Barcelona.	Lima.	Paris.
Batavia.	Lisbon.	Riga.
Beirut.	London.	Rio de Janeiro.
Belgrade.	Madrid.	Rome.
Bogota.	Manila.	Santiago, Chile.
Budapest.	Maracaibo.	Shanghai.
Bucharest.	Mexico City.	Sofia.
Buenos Aires.	Moscow.	Stockholm.
Cairo.	Vatican City.	Tallin.
Copenhagen.	Zagreb.	Teheran.
Helsinki.	Nagoya.	
Hsinking.	New York.	

Points in Telegraphic Communication With Vienna in 1938

Amsterdam.	London.	Tirana.
Barcelona.	Moscow.	Vatican City.
Belgrade.	Oslo.	Warsaw.
Bucharest.	Paris.	Sofia.
Istanbul.	Riga.	
Copenhagen.	Rome.	

Considerable development of wireless picture telegraphy (radio photo) had been made in Germany before the war. Pictures were transmitted from a station near the chief Nauen transmitter to points in North and South America, the Netherlands East Indies, Japan and Russia.

Numerous services were operated for "multiple destinations": e. g. messages broadcast by one transmitter for certain authorized individuals at various points in the world. They included:

- (1) *Eildienst für amtliche und private Handelsnachrichten*, a Berlin organization giving out commercial news;
- (2) DNB German press service;
- (3) German sports news of the G. Koenig organization;
- (4) DNB European press service;
- (5) "Transocean" news service;
- (6) Fishing Port Guard (*Wachdienst für den Fischereihafen G. m. b. H.*) service, which notified fishermen of anything affecting their operations.

Many of the German press services, as well as the Foreign Office liaison with various embassies, were maintained by *Hellschreiber*, a variety of radio telegraphic apparatus recently adapted for military use. The *Hellschreiber*, named for an engineer named Hell, prints on a tape by means of an inked rotating cylinder with a raised helical strip. The dots and dashes of the code press the paper against the cylinder periodically. Since only the helical strip prints, and since the strip is in different positions at different times, a proper spacing of signals will result in the printing of letters on the tape. Only a machine with precisely the same pitch cylinder will receive signals but synchronization is merely a matter of adjusting the speed of cylinder rotation until letters print in a straight line. Because of its simplicity and its relative security, the *Hellschreiber* has provided a means whereby only licensed newspapers could receive DNB transmissions broadcast to all Europe. There were 27 subscribers to this service within Europe on 31 March 1939; today there are probably many more.

3. Marine Radio Installations (FC).—German marine radio is concentrated in two regions: the North Sea coast with the main stations in East Friesland; and the Baltic with the main station at Swinemünde. The installations are described in the CAD Handbook on Germany, Section 12, "Communications." The Reichspost maintained and supervised these installations in peacetime.

4. Aeronautical Radio (FA).—The Air Ministry controls both commercial and military aeronautical radio, although before the war the *Deutsche Lufthansa* purchased its own equipment and hired its own operators. The Reichspost, however, appears to collaborate as a technical adviser and personnel examiner. Passengers in the air could

radio to points below. The aeronautical radio installations of Germany are shown in the tables of the CAD Handbook on Germany, Section 12, "Communications."

5. Special Services.—The Berlin-Hamburg express trains were equipped with radio, telephone, and telegraph installations whereby passengers could remain in constant touch with their offices. The German National Railroad (*Reichsbahn*) had its own radio stations, as did the police, those of the latter being equipped with highly mobile transmitter trucks using both short and long wave.

6. Television.—German television is the most advanced in the world. The Government encouraged the sale of television sets, broadcast programs from three stations (Berlin-Witzleben Brocken in Harz, Foldberg near Frankfurt a. M.), and in general gave every new development all possible publicity. Some television was wired to the subscriber's home, but this system was little used. The television stations are under the program control of the *Reichs Rundfunk Gesellschaft*, but the Reichspost supervises and maintains equipment. Receivers are of the usual scanning-disk or cathode ray tube type. Recent German propaganda claims the invention of television in color, but no technical details are given.

7. Amateurs.—German amateurs, before the war, were few, and were closely supervised. Even to listen to other amateurs and short-wave activity one had to be a member of the *Deutscher Amateur Send- und Empfangsdienst e. V.* (DASD). Approximately 5,000 members were listed in 1939, of which only 500 had transmitting licenses and those only for telegraphic messages on shortwave.

8. Wired Wireless.—The German broadcasting stations are interconnected with high-frequency cables as shown in OSS Map 3069. Aside from the broadcasting hook-up, this network has been used to serve local wired receiving sets (*Drahtfunk*), a system which has met with varying success in different parts of Germany. This network has been used also to connect loudspeakers in public places, for emergency communications, assuring that no one misses important speeches, etc.

Table 8.—Broadcasting stations in greater Germany

(22 February 1944)

City	Kilocycles	Power in watts	Group (if any)
Berlin.....	841	100, 000	
Bregenz.....	519	5, 000	Sueddeutsche Gruppe.
Breslau.....	950	100, 000	
Koblenz.....	1, 195	2, 000	Westdeutsche Gruppe.
Köln.....	658	100, 000	
Danzig.....	986	24, 000	Danzig I.
Danzig.....	1, 303	500	Ostdeutsche Gruppe.
Dresden.....	1, 465	5, 000	
Flensburg.....	1, 330	2, 000	Norddeutsche Gruppe.
Frankfurt (M).....	1, 195	27, 000	Westdeutsche Gruppe.
Freiburg.....	1, 294	5, 000	
Gleiwitz.....	1, 231	5, 000	Schlesische Gruppe.
Görlitz.....	1, 231		Schlesische Gruppe.
Graz.....	1, 285	15, 000	Ostmarkische Gruppe.
Graz.....	886	100, 000	("Alpen").
Hamburg.....	658	100, 000	
Hannover.....	1, 330	2, 000	
Herzberg (Deutschland Sender).....	191	200, 000	Norddeutsche Gruppe.
Innsbruck.....	519	1, 000	Sueddeutsche Gruppe.
Kaiserslautern.....	1, 429	2, 000	
Kassel.....	1, 195	500	Westdeutsche Gruppe.
Klagenfurt.....	527	5, 000	
Königsberg.....	1, 031	100, 000	Königsberg I.
Königsberg.....	1, 348	2, 000	Königsberg II.
Kotschach.....	1, 285		Ostmarkische Gruppe.
Leipzig.....	785	120, 000	
Linz.....	1, 267	15, 000	
Magdeburg.....	1, 330	500	Norddeutsche Gruppe.
München.....	740	100, 000	
Norden.....	658	150, 000	
Nürnberg.....	519	1, 000	Sueddeutsche Gruppe.
Radentheim.....	1, 285		Ostmarkische Gruppe.
Reichenbach.....	1, 231	5, 000	Schlesische Gruppe.
Saarbrücken.....	859	17, 000	
Salzburg.....	519	1, 000	Sueddeutsche Gruppe.
Spittal.....	1, 285		Ostmarkische Gruppe.
Stettin.....	1, 330	2, 000	Norddeutsche Gruppe.
Stolp.....	1, 303	5, 000	Ostdeutsche Gruppe.
Stuttgart.....	574	100, 000	
Trier.....	1, 195	2, 000	Westdeutsche Gruppe.
Troppau.....	1, 231		Schlesische Gruppe.
Unterweser.....	1, 330		Norddeutsche Gruppe.
Wien.....	592	120, 000	

Table 9.—Radio statistics

(31 March 1939)

Postal district	Radio receivers	Postal district	Radio receivers
Aachen.....	100, 064	Köln.....	283, 295
Augsburg.....	134, 850	Königsberg (Pr).....	231, 566
Aussig.....	176, 871	Köslin.....	86, 597
Bamberg.....	86, 811	Landshut (Bay.).....	77, 020
Berlin.....	1, 179, 150	Leipzig.....	619, 593
Braunschweig.....	164, 813	Linz (Donau).....	83, 005
Bremen.....	165, 259	Magdeburg.....	347, 234
Breslau.....	517, 748	München.....	267, 458
Chemnitz.....	381, 048	Münster.....	336, 229
Dortmund.....	429, 900	Nürnberg.....	166, 924
Dresden.....	400, 549	Oldenburg.....	171, 199
Düsseldorf.....	743, 155	Oppeln.....	150, 759
Erfurt.....	369, 569	Potsdam.....	308, 425
Frankfurt (Main).....	465, 621	Regensburg.....	71, 886
Frankfurt (Oder).....	235, 309	Saarbrücken.....	119, 547
Graz.....	89, 111	Schwerin (Meckl.).....	152, 122
Gumbinnen.....	85, 693	Speyer.....	139, 114
Hamburg.....	508, 995	Stettin.....	210, 154
Hannover.....	256, 949	Stuttgart.....	414, 825
Innsbruck.....	71, 960	Trier.....	48, 587
Karlsbad.....	77, 332	Troppau.....	67, 318
Karlsruhe (Baden).....	360, 093	Wien.....	489, 593
Kassel.....	143, 871	Würzburg.....	86, 271
Kiel.....	224, 308		
Klagenfurt.....	27, 808		
Koblenz.....	89, 563	Total.....	12, 415, 121

E. Sources of Telecommunications Equipment.

The telecommunications equipment industry of Germany was one of the most highly cartelized in the world. Virtual control of nearly every part of the light-current apparatus industry was in the hands of the firm of Siemens & Halske in Berlin.

The building of automatic exchanges became a Siemens near-monopoly. There were three reasons for this: (1) Siemens bought the American Strowger patents in 1908; (2) Siemens built the first automatic exchange in Germany and from that time on worked continuously in research, constantly improving the Strowger system; (3) the government has always favored the Siemens firm. In the years after the last war Siemens formed the automatic-telephone cartel known as AUTOFABAG. This cartel existed only for the automatic-exchange field, which was divided up as follows: Siemens & Halske AG, 70 percent; C. Lorenz AG, 10 percent; Deutsche Telephonwerke GmbH, 10 percent; and Mix & Genest AG, 10 percent. The cartel agreement applied only to automatic exchanges sold to the Reichspost.

Siemens led also in the manufacture of communications cables. This leadership originated when Siemens became the European licensee of the Pupin loading-coil patents; since extension of long-distance line depended upon the use of loading coils, Siemens thus devel-

oped a near-monopoly in the field, and has retained its position despite the fact that technological changes have reduced the importance of the loading coil. Siemens held the dominant interest in a cable cartel whose other members were Felt & Guilleaume, Deutsche Habelwerke, C. Vogel, and a few minor manufacturers.

The building of German radio transmitters was the exclusive province of two firms; Telefunken GmbH and C. Lorenz AG. Telefunken, according to the terms of the cartel agreement, received 60 percent of the business, and Lorenz 40 percent. Austrian stations were built either by Siemens, as agent for Telefunken, or by United Telephone & Telegraph. There was no cartel on transmitters in Austria before the *Anschluss*. Manufacture of radio sets in Germany, although hardly a field of free competition, was conducted by a variety of manufacturers, and admission to the cartel was relatively easier than in other fields.

Telefunken was originally owned by Siemens and Allgemeine Elektrizitäts Gesellschaft (AEG), each firm owning 50 percent of the stock. Recently Siemens sold its interest to AEG. Lorenz, Mixter & Genest, and United Telephone & Telegraph (formerly Czeija, Miller & Co. AG.) were all subsidiaries of International Telephone & Telegraph Company, New York. Since all German manufacturers of radio sets had to pay royalties to Telefunken, and because Siemens owned so many basic patents and was so favored by the government, the only other manufacturers in the telecommunications field were branches or subsidiaries of foreign firms whose patents were not under Siemens or Telefunken control. All International Telephone and Telegraph subsidiaries had the use of Bell patents, and the Dutch firm of Philips—by virtue of its own patents—forced its way into the German radio market. Telefunken, Philips, Radio Corporation of America, and the General Electric Company formed an international patent pool in the decade before the war.

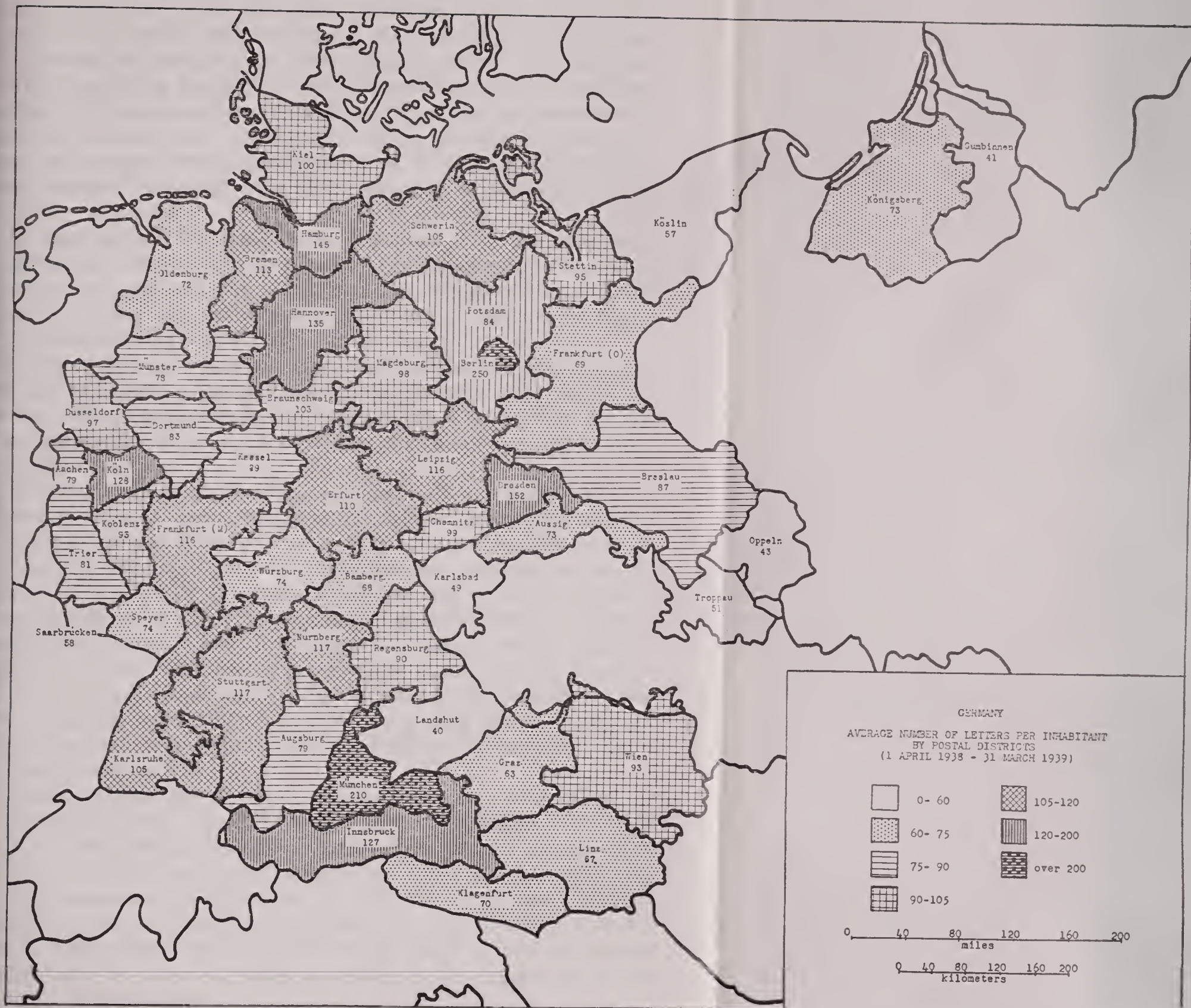
F. Postal Services.

Postal services in Germany are rapid, efficient, and reliable. The German Post performs the same postal services as the United States Post Office, plus certain additional mail and financial services not offered by ours.

Mail service in Germany appears to be divided into two loosely defined classes: *Briefsendungen* (Letter Post) and Parcel Post and Goods Post services. These do not correspond to our divisions of classified matter, but comprise the following services:

1. Letter Post.

a. *Briefsendungen*.—(See map 3, tables 10, 11.) In the letter post are included letters (ordinary, registered, express and special delivery, c. o. d., money-letters), post cards and reply post cards. Under the





same heading come business papers, printed matter, samples, small packages (*Päckchen*), and two categories not used in the United States: mixed packets (*Mischsendungen*) and group packets (*Postwurfensendungen*). The treatment of letters, post cards, printed matter and samples is similar to that in the United States, except that in Germany ordinary letters, registered letters and post cards need not be fully prepaid by the sender. For domestic letters with insufficient postage or without postage, the addressee must pay one and one-half times the amount due; for letters to foreign countries the addressee must pay double. Money-letters and c. o. d. letters must always be fully stamped. Prepaid reply post cards may be sent either inside Germany or abroad.

b. Small packets (*Päckchen*).—Small packets up to 2 kilograms in weight may be sent in Germany, and up to 1 kilogram abroad. They may be registered and sent c. o. d., and with a request for a delivery receipt, but they may not be sent with declared value, since packages with declared value come under another category.

c. Mixed Packets (*Mischsendungen*).—Mixed packets are parcels of samples and business papers (advertisements, price lists) packed together. They may contain 500 samples but must include papers. They may weigh 500 grams in domestic mail, and up to two kilograms abroad.

d. Group Packets (*Postwurfensendungen*).—Group packets are for domestic use only and are packets of business papers and samples, which must be sent in lots of at least 50 in local post and 100 in inter-urban post. They are intended for advertising and must be sent so tied that they can be inspected, but may be sent without address or postage. The post offices in towns and villages keep lists of tradesmen and business houses, which they furnish on request to senders of group packets, or they will themselves undertake to deliver such packages to the appropriate addressee. Advertisements and samples of the shoe industry, for example, would be sent to shoe stores or cobblers, advertisements of household goods to hotels or householders, or of foodstuffs to grocers.

f. Money-letters (*Wertbriefe*).—Money-letters containing money or valuables must have their full or partial value declared and may be sent without limit of weight in Germany; to foreign countries they are limited to not more than 2 kilograms. They may be sent c. o. d. (when containing valuables) up to 1,000 RM in Germany, also by express, to be forwarded, or to be returned. The amount of money or valuables which may be sent to foreign countries and the amount which may be collected, varies according to the regulations of the country of destination.

g. Insured Boxes (*Kästchen*).—Insured boxes are those containing gold, silver, platinum or jewels. They must be registered, insured,

the value declared, and be sealed with wax or lead and with the personal seal of the sender. These may be sent both in Germany or abroad.

h. Dutiable Objects.—Dutiable objects may also be sent from Germany to all countries accepting them in letters, samples, small packets or in insured boxes. If the sender wishes, he may write "Duty Free" on his packet, and himself pay the duty on receipt of information from the country of the addressee as to the customs charges.

i. C. O. D.—C. o. d. service may be used for any service of *Briefsendungen* in Germany, i. e., for letters or packages of a value up to 1,000 RM in Germany; for c. o. d. service abroad the maximum amount collectible varies. C. o. d. service in Germany from abroad was suspended in 1938.

2. Parcel Post.—(See map 4.) The parcel service in Germany is divided into two categories: Parcel Post (*Pakete*) for dispatch in Germany and abroad, and Goods Parcels (*Postgut*) for domestic service only.

a. Parcel Post (*Pakete*).—(See tables 10 and 14.) Parcel post carries packages up to a weight of 20 kilograms in Germany; abroad the weight allowed varies from 5 to 20 kilograms. Packages may be sent: (1) by air mail; (2) by express (to the frontiers of Germany only for packages sent abroad); (3) by special delivery. Packages with declared value up to 500 RM may be sent within Germany unsealed; those with a higher value must be sealed with sealing wax or lead, or, since the war, with aluminum. Insured packages sent abroad are always sealed. Small fees are charged for these special services, and are generally paid by fee stamps.

Parcel post is delivered at the house by postmen; on payment of a special fee, even during the night. If they are not too heavy and sufficiently protected by suitable packing, and if the postman's load does not exceed the fixed limit, packages may be collected for dispatch by the postman on his rounds. Important firms may have packages collected by the motor services of the post and may themselves affix the dispatch numbers and enter the packages in a postal ledger. Parcels sent c. o. d. are limited to 1,000 RM in Germany; to foreign countries the amount varies. They need not be fully prepaid for delivery in Germany, except when they are sent by air mail, express or with declared value; to be sent abroad they must be fully prepaid. "Cumbersome" packages (in excess of regular dimensions) may be sent by international service on payment of a surtax of 50 percent.

b. Goods Parcels (*Postgut*).—(See table 14.) Goods Parcel Post is a special category for use within Germany only. These parcels are sent at a reduced rate, generally in groups of more than three at a time, dispatched for local distribution, and are given further special rates



when sent by the same sender to the same addressee. They may be sent c. o. d., with value declared and unsealed, but not with declared value *and* sealed; nor by air post; nor requiring return receipt. The fee for this service is calculated by zone and by weight.

3. Newspaper Subscription Service.—(See table 10.) German post offices act as intermediary and distributor between publishers of daily and weekly newspapers and journals both German and foreign, and their subscribers. Subscriptions to newspapers are accepted at the post offices, and the papers are delivered by post. The post office neither buys nor sells the papers, and accepts no responsibility for their complete or regular delivery. Delivery may at any time be prohibited by the postal authorities. Special rates are given to publishers for newspapers sent to station and other news stands. In 1938 the total number of newspapers subscribed for and distributed through the post office within the country was: 1,602,199. 11,632 foreign newspapers were subscribed to through the German post office, and 11,258 German newspapers sent abroad.

4. Pneumatic Post.—Pneumatic postal service is installed in many of the large cities of Germany: there are 90 pneumatic post offices in Berlin, with a total length of 416 km.; in Munich 33 offices and 88 km. length of pneumatic network; in Vienna 43 offices and 80 km. length of network. In these three cities the pneumatic post is for public as well as for municipal services. In other cities the service is municipal only. In Berlin special pneumatic systems connect the main post office with branch offices, the main post office with the railroad station and the chief telegraph station with the Berlin Air Field. In the municipal offices and many of the larger business houses and factories internal pneumatic tubes are used. The public system dispatches telegrams, letters, and postcards. Tubes are laid one meter below the level of the sidewalk they are automatically blocked if water enters the tube. Telegrams from the Central Telegraph Office in Berlin take 10 minutes to reach the farthest point of the municipal network; letters may be exchanged within the city in 2–3 hours. The service is widely used by people who are unable to afford a telephone. In 1939, 7,865,783 pieces of mail, including telegrams, were sent by tube in Berlin; 1,645,116 in Munich; 5,264,992 in Vienna.

5. International Agreements.—Germany is a member of the Universal Postal Union. In 1938 certain of the postal services, i. e., c. o. d., money-orders, collection of bills, insured boxes, were temporarily suspended between Germany and certain foreign countries, notably Italy, Roumania, Czechoslovakia, Jugoslavia, Esthonia, and Hungary. In some cases the services were discontinued in both directions, in others to Germany or from Germany only. In 1942, Germany formed, with the countries she had annexed or occupied, a European Postal Union. It is not clear from the clauses of this treaty whether or not the discon-

tinued services with the individual countries were resumed at that time. In the statistics quoted, in some cases the services will appear as suspended but generally from abroad to Germany only.

G. Postal Banking Services.

1. Postal Money Orders (*Postanweisungen*).—Postal money orders in Germany are similar to those in the United States. The maximum for domestic postal money orders is 1,000 RM, but telegraphic money orders are unlimited. The amount which may be sent to foreign countries is regulated by the laws of the country of the addressee. The service decreased during the year 1938, probably because of the question of foreign exchange; but it has also been notably replaced by the postal check system, and is used principally by people who have no postal check accounts. (See table 12.)

2. Collection of Bills by Post (*Post Aufträge*).—The collection of bills of exchange is also carried out by the post office in Germany, as in most of the European countries. After 1938 no collection of bills was permitted in Germany from abroad.

3. Postal Traveller's Checks (*Reise Postscheck*).—Postal traveller's checks, issued in denominations of 25 RM are provided for duly identified persons by any German post office. These serve the same purpose as American Express traveller's checks and may be cashed at any post office or postal check office.

4. Postal Check System (*Postscheckdienst*).—The postal check system, initiated in 1909, was originally intended to serve the needs of persons whose means did not warrant the opening of a bank account. In practice, however, the postal check system has been so widely extended that in October 1942 there were 1,600,000 accounts in the postal check banks and deposits amounted to a total of 2,400,000,000 RM. Any duly identified individual, group, firm, public body, club, or foreigner may open an account at any principal post office or at the postal check offices where the account is to be kept. Nearly all commercial firms and tradesmen have postal check accounts, and many large firms have more than one, held in offices of different cities. The postal check system is an independent administration; it is self-supporting but makes no profits.

Payment into postal check accounts, or transfer from one account to the other, may be made at any postal check office (*Postscheckamt*) or principal post office (*Postanstalt*). Payments are made either by money order or payment card (*Zahlkarte*). These payment cards, issued at a special price in lots of 400 by the post office, may also be privately printed according to specified regulations and must carry the name, address, and postal check number of the owner of an account. Fees for such transactions are paid by means of special stamps. There are also special telegraph-payment cards.

Bills in Germany are commonly sent with the payment-card of the business house or individual enclosed. Payment is then made at the post office or postal check office, and entered on the account of the creditor. Such cards are used both in Germany and abroad, and also for c. o. d. letters or parcels.

Transfer from one account to another is carried out within the postal check bank, without the actual transfer of cash, and is not only the principal means of activity of the postal check system but also the usual means of payment of accounts. No charge is made for this operation.

Payments in cash from the postal check accounts are a secondary activity: in 1938 the percentage of operations in the postal check system was, in round numbers, as follows: sums transferred from one account to another, 57 percent; sums paid in by money-orders, payment-cards, 35 percent; withdrawals from accounts 8 percent; expenses, etc., 0.6 percent. Withdrawals are made by means of postal checks, made out either to bearer (cashiers' checks) or in the name of the payee. Since no check is indorsable, checks made out to an individual may safely be sent by ordinary letter post.

The postal check consists of three parts: the check proper, the right-hand stub, and the left-hand stub. When the check is presented by the payee at the post office or postal check office, the check proper is retained by the bank and filed; the right-hand stub is sent to the owner with a statement of the transaction which has been carried out on his account; the left-hand stub is retained by the payee as notification of payment. Checks must be cashed within 10 days of issue. A depositor may authorize other individuals to sign checks for him, after double verification of the authorized signature by the bank. After the death of the owner, a postal check account may be used by his legalized heirs for 6 months. Deposits bear no interest, and 5 RM must remain as a permanent deposit.

5. Postal Savings Bank (*Postsparkasse*).—In 1938 the Postal Savings Bank, which had functioned successfully and with growing popularity in Austria since 1885, but had never existed in Germany, was taken over and extended to the whole Reich. The Austrian Postal Savings Bank was a separate organization, existing independently of the post office and with its own judicial status and its own capital (*Vermögen*). The Austrian Post Office, whose facilities were used by the Postal Savings Bank, was remunerated by annual indemnities. After the *Anschluss*, the Postal Savings Bank ceased to be a separate organization and was incorporated into the Reichspost. The capital of the Savings Bank is, however, not included in the other capital of the post office. It is independently administered and invested and does not enter as a fund in the profit and loss accounting of the post office, but is mentioned in a special heading. The chief office, where centralized accounting is carried out, remains in Vienna.

Since its incorporation into the Reichspost, the Postal Savings Bank has grown rapidly. In 1939, 1,203,000 new savings bank books were issued and the sum of 311,200,000 RM paid in by new depositors. The largest number of depositors come from the large cities—of which Berlin leads—and the industrial centers. The depositors are generally owners of small savings; in 1940 the average sum held by a depositor in the Postal Savings Bank was 165 RM; in the savings associations 430 RM. On 31 March 1939 the number of accounts in the Postal Savings Bank were 795,613 RM and the amount deposited, 546,200,000 RM. In December 1943 the sums deposited amounted to 5,000,000,000 RM. Since in 1938 the postal systems of Austria, the Sudetenland, and Memel were incorporated into the postal administration of the Reich, these statistics include the three occupied countries.

Post offices (*Ämter*) and secondary post offices (*Amtstelle*) throughout Greater Germany may receive and pay out deposits. Certain smaller post offices, agencies, and rural delivery offices are limited in the amount they may receive. Only the higher offices may issue deposit books or carry out accounting with the head office in Vienna. Consequently only 3,000 out of the 55,000 offices that accept deposits and pay out withdrawals are intrusted with accounting operations.

Any individual, of any age, may own a postal savings account. Accounts of one RM are accepted and bear interest at 2 percent. This is less than the interest paid by ordinary savings banks and was established in order not to compete with them. When the initial deposit is made, the depositor receives a postal savings book (*Postsparkbuch*), and identification card (*Ausweiskarte*), withdrawal card (*Rückzahlungskarte*), and notification cards (*Kündigungskarte*) on which his name, number, address, and occupation are written. No depositor may own more than one book.

Deposits are recorded on deposit forms (*Einzahlungsscheine*) made out by the depositor, and are entered in the postal savings book. Postal savings cards (*Postsparkarten*) with special fee stamps for small amounts are accepted for sums of 3 RM. A depositor may transfer money from his own postal check account to his postal savings bank account (and in 1939, 11,500,000 RM were so transferred), but transfer of funds from one postal savings account to another, except from that of a husband to his wife and vice versa, is not permitted. This restriction is made for technical banking reasons, but also because the name and number of a depositor in the postal savings bank—unlike the postal check system—is secret, and may be known only to intimate family relations.

A postal savings account may be attached in case of bankruptcy to the same procedure which governs the attachments of other assets of the bankrupt.

Deposited sums, with interest accrued, may be withdrawn at any post office in Germany except branch post offices. At rural delivery offices no sum above 1,000 RM may be withdrawn. Sums up to the amount of 100 RM may be withdrawn without notice, but not more than 1,000 RM in any 1 month. The withdrawal card is used for withdrawals for sums under 100 RM, but for higher amounts than 100 RM the notification form also is obligatory. Amounts of 100 to 1,000 RM will be paid out on notification with no period of delay, but not more than 1,000 RM in any 1 month; for amounts above 1,000 RM, 3 months' notice must be given. Sums for which previous notice has been given are entered in the deposit book and paid to the depositor by means of the payment orders sent him directly by the Postal Savings Bank. In special cases the delay after notification may be waived, but in practice the larger sums are not withdrawn, and withdrawals are therefore generally made without delay. In 1939 withdrawals from deposits in the Postal Savings Bank were 53 percent, while withdrawals for the same period from the ordinary savings banks were 83 percent.

Since the postal administration is only the manager of the moneys intrusted to it by the depositors, investments are chosen which offer an absolute guarantee of security. They are, as a rule, divided as follows:

1. An average of 5 percent in current accounts at the National Bank;
2. An average of 15 percent in government bills, bills of the Gold Discount Bank, and Treasury Bonds;
3. An average of 80 percent in interest-bearing Treasury bonds and government stock.

H. Postal Transport.

The Reichspost transport the various branches of its postal service by rail, motor vehicle, sea and air.

1. Rail.—Railroad post offices for the relaying of mail are established in the principal railway stations of Germany. In 1937, in cooperation with the German National Railway, 14,117 railroad trains were transporting mail daily for the Reichspost, with 3,407 mail vans serving as travelling post offices, and 1,873 rented compartments. Three special types of van have recently been constructed for use with express trains, carrying letter-post, letters and parcels, and parcels and small packets.

2. Motor Transport.—In 1938 the Reichspost owned and operated 5,928 lines of motor transport and carried 127,367 passengers. The principal types of motor services are the interurban (*Kraftpost*), and the rural postal motor lines (*Landkraftpost*).

a. Interurban postal motor lines.—These services carry mail and passengers and their luggage. They connect the villages of the low lands (Flachland) which are served individually by the railroad but lack railroad connection with each other. Other services carry mail across the country to towns and villages which have neither railroads nor other transport facilities.

b. Rural Postal Motor Lines (Landkraftpostlinien).—Rural postal motor services connect small villages, hamlets, and settlements with their chief-town post offices, and form—with the interurban postal motor lines—a postal and transport network for the localities not served by railway. The rural service lines make it possible for the country post offices to dispatch and expedite mail to the most remote districts, and, in connection with the railroads, to carry country produce to the cities. To provide such facilities and communications rural services are sometimes run at a loss but subsidized by government funds. Caterpillar-traction busses are used during the winter in mountainous country. Gasoline engines are used for long-distance runs, electric traction in cities; motorcycles are employed in towns for special delivery, collection from post boxes, and transport of mail sacks.

c. Mobile and Dismountable Post Offices.—There are various other motor transport lines used for special routes or purposes, and in particular two recently-constructed types for service at athletic events and political meetings and rallies. These are the mobile and dismountable travelling post offices. Both types are fitted with all equipment necessary for postal services, telephone and telegraph, and radio. The mobile post office is composed of one car only; the dismountable post office consists of two cars and a trailer, in which the personnel lives. The mobile office can be set up for service in 8 minutes and the dismountable office in 16 hours.

The Reichspost owns and controls 4 types of motor repair shops for its motor transport: (1) town workshops (*Ortsverkehrwerkstätte*) of which there were 2,000 in 1938, for small immediate repairs; (2) district workshops (*Bezirkswerkstätte*), of which there were 55 in 1938, carrying out repairs requiring up to 300 hours or 14 days; (3) head workshops (*Hauptwerkstätte*), of which there were 7 in 1938 for major repairs and replacements; and (4) the chief head workshop (*Hauptwerkstatt für Postkraftwagen*) at Berlin-Borsigwalde, which supervises the procurement of raw materials and maintains a research laboratory. After running 100,000 to 150,000 km. cars are taken to the head workshops as a matter of routine.

3. Sea.—Before the war, mail was carried to the United States for the Reichspost by transatlantic liners. Mail carried on ships from Germany to New York was escorted by German post office personnel and prepared for distribution on the ships—according to German regulations.

ulations on the westbound journey, and according to American regulations on the east-bound.

4. Air.—For air transport the Reichspost uses the flights of the commercial lines as well as certain services of its own. In peacetime during the summer more than 100 air miles were used and more than 6,000,000 kilograms of air mail were dispatched. Since it is the policy of the Reichspost to foster air-mail service and to transport mail by the fastest possible means, much of the air mail is carried without extra fee.

The night flights of the Reichspost (*Nacht Flüge der Deutschen Reichspost*) carry mail between the large cities, so that letters posted in the evening may be delivered on the following morning. Before the war special planes to Bremerhaven and Cuxhaven carried mail posted too late to reach departing steamers by other means, and brought back mail collected from incoming steamers. Mail from South America was flown by *Deutsche Lufthansa* and the Condor Syndicate.

I. Postal Deliveries.

Postal deliveries in German cities are made two, three, and even four times a day, depending upon the volume of business. There is one delivery on Sundays and on most holidays, but none on 1 May, 26 December, Easter Monday, and Whitmonday. In rural areas there is a single delivery on weekdays and none on Sundays and holidays. The mail, may, however, be collected at the post offices. The same holidays as those observed in the cities are kept in rural areas, and, in addition, the Day of Observation in Prussia, in Protestant districts the Day of Reformation, and in Catholic districts Corpus Christi.

Special delivery messengers carry mail during the day and, on special stipulation and for special fees, during the night. Post office boxes may be rented, as in the United States.

J. Postal Addressing Districts of Germany.

The 32 Postal Addressing Districts of the German Reich are listed in the CAD Handbook on Germany, Section 12. These are not coincident with the Postal Administrative Districts.

Table 10.—Volume of postal business

(31 March 1939)

Postal districts (<i>Postdirektionen</i>)	<i>Briefsendungen</i> ¹	<i>Paketsendungen</i> (Ordinary parcels)	<i>Zeitung</i> (News- papers)
	<i>Millions</i>	<i>Thousands</i>	<i>Millions</i>
Aachen.....	58. 6	2, 134	1. 8
Augsburg.....	83. 9	4, 498	16. 8
Aussig.....	17. 9	484	1. 2
Bamberg.....	52. 4	3, 530	7. 4
Berlin.....	1, 080. 8	32, 781	577. 9
Braunschweig.....	91. 4	3, 806	7. 0
Bremen.....	100. 7	11, 387	10. 0
Breslau.....	280. 8	11, 913	33. 0
Chemnitz.....	191. 8	18, 033	6. 0
Dortmund.....	216. 6	7, 568	22. 9
Dresden.....	289. 7	12, 453	17. 9
Düsseldorf.....	395. 0	20, 179	36. 0
Erfurt.....	233. 6	14, 028	20. 2
Frankfurt (Main).....	328. 2	13, 713	40. 7
Frankfurt (Oder).....	101. 0	5, 058	21. 7
Graz.....	70. 2	2, 058	10. 2
Gumbinnen.....	37. 4	1, 813	10. 8
Hamburg.....	324. 1	12, 934	54. 7
Hannover.....	173. 4	6, 718	26. 8
Innsbruck.....	90. 9	1, 468	11. 0
Karlsbad.....	7. 0	251	8. 8
Karlsruhe (Baden).....	265. 2	12, 703	47. 8
Kassel.....	97. 4	3, 803	29. 6
Kiel.....	113. 4	4, 849	17. 1
Klagenfurt.....	30. 5	739	2. 2
Koblenz.....	71. 9	2, 246	6. 2
Köln.....	198. 0	8, 644	16. 3
Königsberg (Pr).....	116. 2	4, 362	33. 8
Köslin.....	48. 0	2, 218	6. 6
Landshut (Bay).....	35. 8	1, 811	13. 6
Leipzig.....	349. 5	19, 542	40. 3
Linz (Donau).....	68. 3	2, 007	37. 0
Magdeburg.....	161. 6	6, 454	11. 0
München.....	210. 3	8, 093	96. 7
Münster (Westf).....	211. 1	10, 754	21. 2
Nürnberg.....	123. 6	7, 191	31. 0
Oldenburg (Oldb).....	89. 4	3, 674	21. 9
Oppeln.....	66. 9	3, 024	6. 0
Potsdam.....	112. 8	4, 126	15. 3
Regensburg.....	73. 7	3, 752	14. 4
Saarbrücken.....	47. 3	1, 448	3. 8
Schwerin (Meckl).....	85. 3	2, 403	14. 5
Speyer.....	73. 7	7, 088	7. 5
Stettin.....	117. 1	3, 841	11. 8
Stuttgart.....	315. 6	19, 943	64. 4
Trier.....	44. 5	1, 503	5. 3
Troppau.....	6. 9	211	9. 9
Wien.....	351. 4	9, 142	97. 9
Würzburg.....	59. 0	2, 282	9. 5
Total.....	7, 769. 7	344, 660	1, 613. 5

¹ *Briefsendungen* includes: letters, post cards, printed matter, group parcels, business papers, mixed parcels, samples, and small packages

Table 11.—Letter post (Briefsendungen)

(31 March 1939)

Briefsendungen	Total	Letters	Post cards	Printed matter	Group packets	Mixed packets	Samples	Small packets
Inside Germany.....	7,408,672	3,439,031	1,714,885	1,736,889	160,916	174,104	74,754	108,093
To foreign countries from Germany.....	360,998	164,045	77,874	98,780	-----	.025	10,357	1,917
From foreign countries to Germany.....	153,625	89,464	39,720	18,086	-----	2,814	2,894	.647
Total, 1938.....	7,923,295	3,692,540	1,832,479	1,853,755	160,916	176,943	88,005	110,657
Total, 1937.....	6,821,593	3,093,277	1,555,813	1,671,569	177,373	150,226	76,886	96,449

Table 12.—Money orders, c. o. d.

(31 March 1939)

	Money orders		C. o. d.			
	Total number	Value in Rm.	Total number	Out of total in column 3		Total value in Rm.
				Letters	Packages	
1. Inside Germany.....	Millions 69.044	Millions 1,724,707	Millions 111.794	Millions 76.391	Millions 35.403	Millions 1,740.363
2. To foreign countries from Germany.....	2.509	33.325	.055	.045	.010	.927
3. From foreign countries to Germany.....	.918	18.642	-----	-----	-----	-----
Total, 1938.....	72.471	1,776,674	111.849	76.436	35.413	1,741.290
Total, 1937.....	69.278	2,453,131	108.355	76.162	32.193	1,743.061

Table 13.—Post offices and subsidiary post offices of Reichspost

(31 March 1939) †

Postal districts, area, population			Postal services							
1	2	3	4	5	6	7	8	9	10	11
Postal districts (Reichspostdirektion)	Area in sq. km. (Fläche)	Population (Wohnbevölkerung)	Post offices (Postämter)	Branch P. O.'s (Zweigpostämter)	Railway P. O.'s (Bahnpostämter)	Postal check offices (Postscheckämter)	Postal agencies (Postagenturen)	Secondary P. O.'s (Poststellen)	Rural post offices (Posthilfstellen)	Total in columns 4-10
9.....	586,281.76	76,599,820	4,198	2,554	20	21	12,484	27,204	5,365	51,846

Table 14.—Parcel post and registered post

(31 March 1939)

1	2	3	4	5	6	7	8	9
Parcels and registered mail	Total number (millions)	Ordinary parcels	Goods post included in column 3	Registered parcels	Money letters	Total value Rm.	Of total value in column 7 parcels Rm.	Of total value in column 9 money letters Rm.
1. Domestic mail.....	347. 171	340. 268	105. 113	2. 659	4. 244	10, 904. 359	6, 154. 821	4, 749. 5
2. To foreign countries from Germany.....	4. 626	4. 392	-----	. 143	. 091	51. 938	30. 163	21. 7
3. From foreign countries to Germany.....	2. 528	2. 414	-----	. 086	. 028	23. 938	15. 304	8. 6
4. Passing through Germany.....	1. 030	. 887	105. 113	. 115	. 028	29. 825	22. 237	7. 5
Total, 1938.....	355. 355	347. 961	105. 113	3. 003	4. 391	11, 010. 010	6, 222. 525	4, 787. 5
Total, 1937.....	312. 893	306. 986	95. 060	2. 592	3. 315	8, 921. 580	5, 282. 362	3, 638. 2

III. BIBLIOGRAPHIE.

The following volumes and periodicals are recommended for further information on the Postal and Telecommunications Services.

Deutsche Reichspost: Verwaltungsbericht über das Rechnungsjahr Annual. Yearly report of the Reichspost. Very complete and well prepared.

Postarchiv: A monthly periodical dealing with policy and technical developments of the Reichspost.

Amtsblatt des deutschen Reichspostministeriums. Monthly news and official orders, etc. for Reichspost officials.

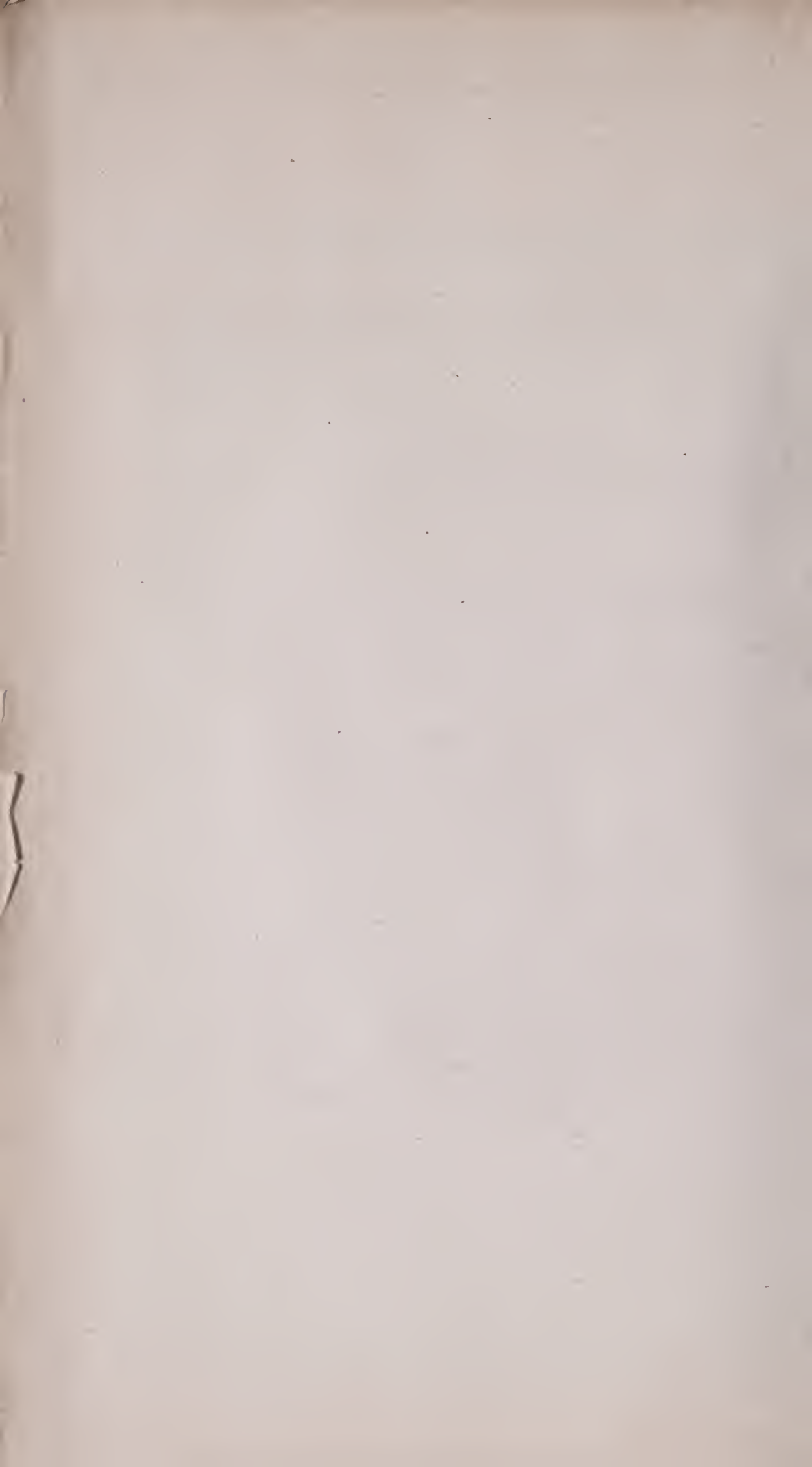
Postnachrichtenblatt. Similar to the AMTSBLATT.

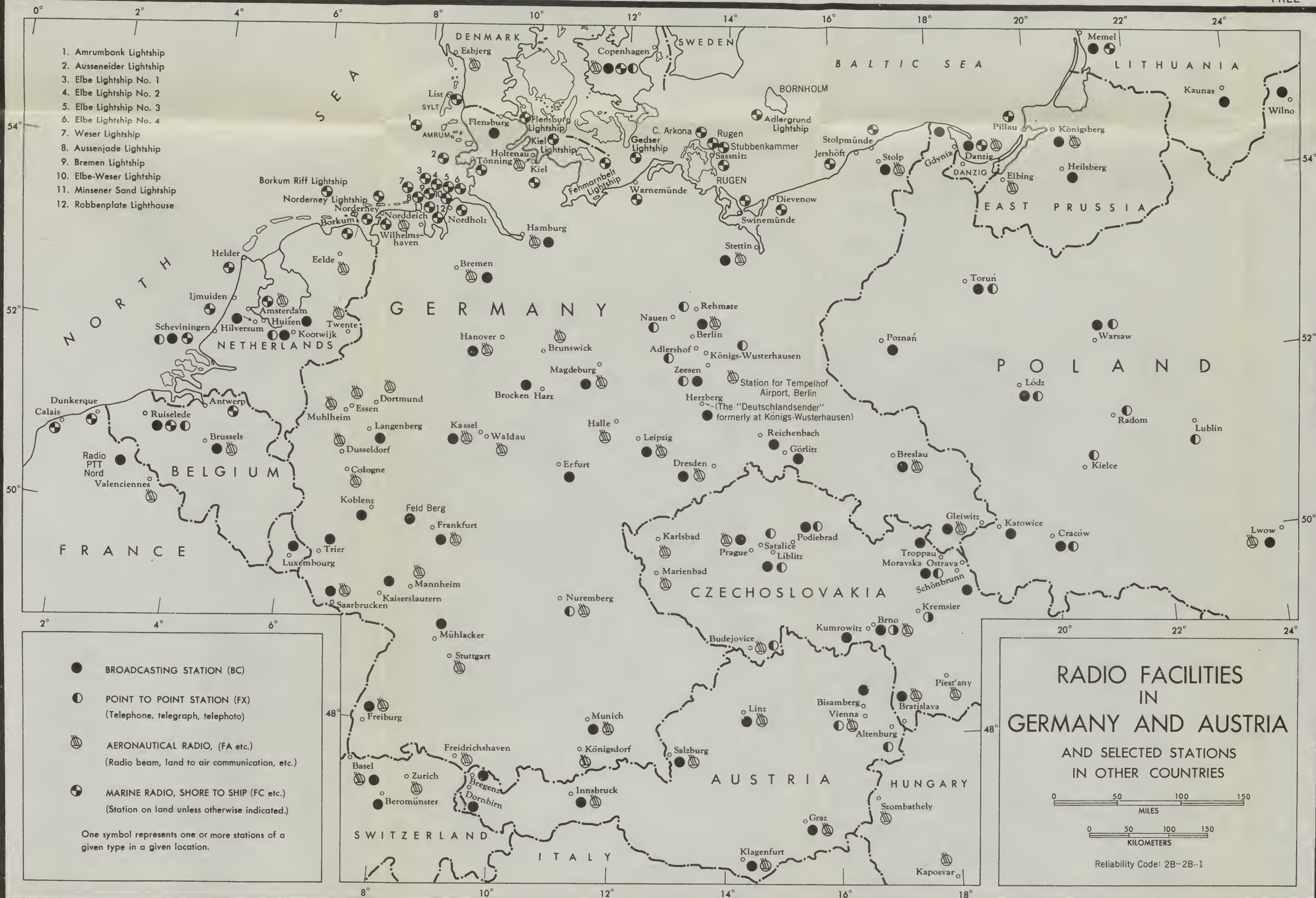
Jahrbuch des Postwesens. Annual. Miscellaneous information.

Siemens Zeitschrift. Monthly publication of Siemens & Halske Good technical information.

Telegraphen-Fernsprech Funk und Fernseh-Technik. (TFT) Periodical dealing with telecommunications from the technical side

Any library likely to have the last two periodicals will probably have a fairly complete set of the innumerable German technical journals, such as *VDI Zeitschrift*, *Siemens Technische Mitteilungen*, *Telefunken Zeitung*, *Europäische Fernmeldedienst*, etc.





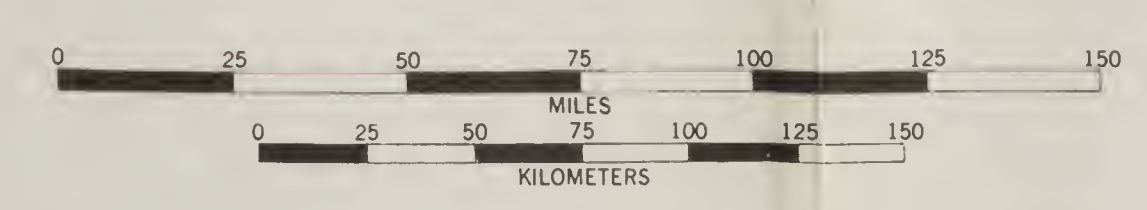


GERMANY AND AUSTRIA WIRE COMMUNICATIONS

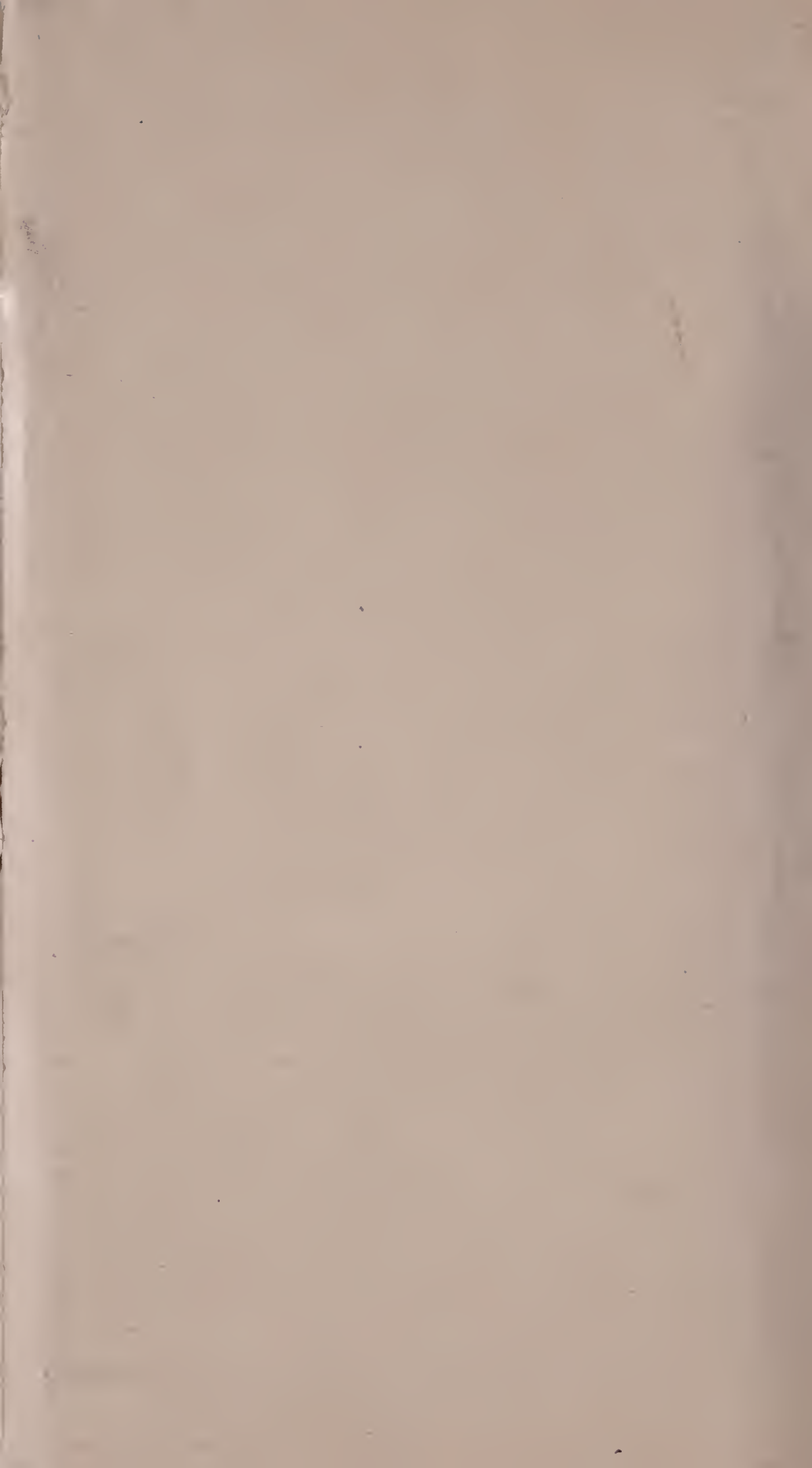
WITH SELECTED PRINCIPAL LINES IN ADJACENT COUNTRIES

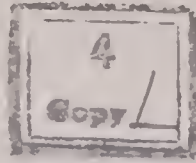
- LONG DISTANCE SUBTERRANEAN TELEPHONE CABLE
- OVERHEAD TELEPHONE LINE
- PRINCIPAL TELEGRAPH LINE
- BROADCASTING NETWORK
- TELEPHONE REPEATER STATION
- TELETYPE EXCHANGE
- - - INTERNATIONAL BOUNDARY (1936)

Routings are only approximate.









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WAR DEPARTMENT PAMPHLET NO. 31-150

CIVIL AFFAIRS GUIDE
ELECTRIC POWER SYSTEMS
OF GERMANY
PLANNING GUIDE



WAR DEPARTMENT

22 JULY 1944

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WAR DEPARTMENT,
WASHINGTON 25, D. C., 22 July 1944.

War Department Pamphlet No. 31-150 Civil Affairs Guide, Electric Power Systems of Germany has been prepared by the Research and Analysis Branch, Office of Strategic Services and Foreign Economic Administration and is published for the information and guidance of all concerned.

[A. G. 461 (10 Jul 44).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

NOTE

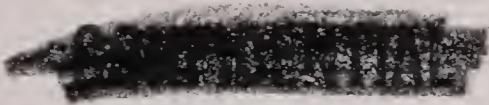
Civil Affairs Information Guides and Civil Affairs Guides designed to aid civil affairs officers dealing with problems in liberated areas, each guide being focused upon a specific problem in a particular area. These guides are not basic collections of factual information as are the Civil Affairs Handbooks, nor are the recommendations contained in the guides intended to take the place of plans prepared in the field. They are rather designed to point the factual information toward the making and executing of plans by those civil affairs officers assigned to this work in the theaters of operation. *In no sense Guide to be taken as an order.* Such orders will be issued in the normal manner.

This Guide has been approved by the Committee on Civil Affairs Studies.

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SUMMARY

1. Electric power and power facilities in Germany pose extremely important problems for the occupying forces. Solutions to these problems will be conditioned by (a) broad objectives of United Nations policy toward Germany; (b) technical and economic factors involved in the generation, transmission, and distribution of energy within the area; and (c) the degree of political and economic organization existing in Germany at the time of occupation.

2. In planning operations Allied authorities will need to have an understanding of the characteristics and working pattern of the German electric power system, in order to utilize it most efficiently to their best advantage. The scope of the problem is indicated by a consideration of the fact that in occupying Germany, the United Nations will gain control of an electric power system second only to that of the United States. This system has been an indispensable basis for Germany's industrial machine. Electric power is thus one of the most vital and significant elements in German national life. The Appendix to this Planning Guide takes the Civil Affairs Handbook, Germany, Section 10A. Public Works and Utilities. Electric Power, as its starting point. It presents a very brief summary of factual material which is much more thoroughly treated in the Handbook and then covers important developments known or believed to have taken place during the present war.

3. On the basis of (a) factual analysis, (b) experience to date in occupied areas, and (c) the responsibilities which rest on the occupying forces in providing adequate electric power for military and essential civilian needs, this Planning Guide presents recommendations as to the most important problems which confront Allied authorities as they move into Germany, and a program of action directed to the solution of these problems.

4. The discussion assumes the existence of a combined Control Commission, with powers to act on an over-all national rather than a local basis. It is believed that the needs and objectives of the occupying forces will be best served by a centralized national control and operation of the German power system. It is suggested that areas of occupation reserved to each nation be not considered as autonomous units in this connection but function independent of each other only in the fields of (a) selection of electric power personnel, and (b) routine administrative services.

5. At all times, it is assumed that Allied manpower and material will be conserved as much as possible, especially in view of the limited amount of emergency equipment available, and the problems involved

in building up stock piles. It is therefore suggested, in view of the abundance, that German repair facilities and raw materials be used exclusively, in preference to imports from the United States or the United Kingdom; and that actual company and plant operations be performed as far as possible by German personnel. The sole decision on the United Nations should be that necessitated by the basic assumption that critical technical actions and basic policy decisions must be reserved to Allied authorities.

It seems inevitable that there will be a short period immediately after the cessation of hostilities during which, in the probable absence of a German government with which to deal, no integrated nation-wide program can possibly be made operative. This period will call for the handling of electric power by meeting local requirements with local facilities, except perhaps in areas which have already been occupied by the Allies, and which, therefore, will have been organized by the Allied armies. The activities of Allied electric power officers at the local level, during the period of waiting for a nation-wide program to go into effect, might follow the pattern outlined in A, below. Suggestions relating to the nation-wide program and organization are set forth in B, below.

A. Program for Operations Immediately After Cessation of Hostilities

1. Survey of existing conditions.—It is of prime importance to ascertain first of all the conditions of the electricity system by means of an engineering survey which would serve two vital ends:

- (i) Activation of plants needed for electricity production, and
- (ii) Protection against eventual future claims of indemnity.

It will be important to know the extent of war damage and the extent of deterioration of equipment.

Details such as selection of personnel, preparation of check lists, questionnaires, etc., and scheduling the times at which different localities will be surveyed, should be worked out in advance. The forms on which information is to be entered should be standardized for the three zones of occupation. In certain cases the survey may be facilitated by questioning former local officials and inhabitants whose information can be readily authenticated. The officers should have adequate clerical assistance to permit making detailed reports in quadruplicate.

Existing plant records should be used whenever possible. These will probably be found in the plants, in company business offices, and in appropriate government offices. Records on public or mixed-ownership plants will probably be found in the government supervising agency. Quite complete technical data on all types of plants should be available in the offices of the local, regional, or national units of the Electricity Supply Business Group (*Wirtschaftsgruppe Elektrizitätsversorgung*).

The survey officers should:

(a) Cover the main parts of the electric system, viz, generating equipment and auxiliary installations, transformer, switching, measuring, regulating, etc., installations, at the generating stations, main high-tension transmission lines, main distributing substations, and the distributing system (at least as to its general condition).

(b) Register the property type of the plants, whether public, mixed, or privately owned. Register the size (capacity) of the pri-

cipal pieces of equipment, their make, and age; ascertain damage and general condition of the working equipment. Survey the facilities for repairs, and replacement and repair materials available at the plants.

(c) Ascertain the possible output of the plant (peak load in kw. and output in kwh. over a determined period) and whether the plant must be closed down at any time. This will be the case for hydroelectric plants which depend on the availability of water. Note carefully the operating characteristics of the hydroelectric plants.

(d) Make an inventory of the available raw materials necessary to operate the plants. Ascertain kind and quantity of fuel needed (specific amounts per kwh. generated, assuming operation of the plant a certain number of hours per day, will show the relative efficiency of the plants). Note the source of supply, methods of transportation to plant, and whether the source is still open for supplies, and if so, to what extent.

(e) Enter on a master map the approximate area served. Note the function of the plant within an interconnected network (whether base or peak load, standby, seasonal reserve, etc.), and how the plant is technically coordinated with other plants in the network.

(f) Get a rough classification of customers, such as domestic customers, general industrial consumers, and largest industrial consumers (for instance: electrochemical, electrometallurgical, and synthetic industries) and their consumption (peak demand and very large consumers). These data should aid in calculation of essential needs.

(g) Survey briefly the personnel needed and available to operate plant and systems. Try to find the personnel records from which some useful information about prospective cooperation with the Allied Forces may be gathered.

(h) Get a schedule of general working conditions, wages, safety devices, fluctuation of workers, Nazi organizations and their activities in the plants, age groups employed in the plants, number of workers previously organized in democratic labor unions, etc.

(i) Turn over one copy of the survey to the local power officer to use in local planning arrangements. Send a second copy to the district power officer (see below). He will need it for his task of unifying power supply in his district. If there is a Property Officer in charge of a plant, he will need the third copy of the data, both for business purposes and for his records—it may well be of value for his use in eventual settlement of claims. The fourth copy should go to the nation-wide Allied agency, to which it will be of great value in working out the national reintegration of the industry.

2. Local requirements.—The officers responsible for each locality will be called upon to make the first decisions with respect to the provision of electricity to meet the most vital requirements. In all except the largest cities it should be possible for an officer responsible for all utilities to cope with electricity problems, but in large cities there may well be an officer, perhaps with a staff, responsible for electricity alone.

At least the basic requirements for each locality should be anticipated in a plan drawn up, with the assistance of all Allied officer in charge of the town previous to occupation. This should cover estimates of the needs of the occupying forces, civilian hospitals, the

water system, urban transportation, municipal administration, households, essential trades, and (if any are determined in advance) essential industrial activities. After occupation, the plan needs to be checked and perhaps altered.

If the survey of existing conditions indicates a local shortage of power, a schedule of priorities should be enforced. With allowances for variations among localities, the uses listed in the previous paragraph might serve as a priority schedule in the order given. Restrictions on consumption could be enforced by retaining existing controls, administered locally by the electric companies with Allied supervision.

3. Resumption of service.—The local utilities officer should have full authority in arranging for the immediate resumption of power production and allocation of available supply. Restrictions on electricity consumption already in force under German authorities might be retained at the outset (see Handbook, p. 111). These functions of the local officer should be limited to the short period before the unification of a partial or total German electric power system is possible. The emergency character of this kind of administration suggests an attribution of great independence to the local Military Government official but, at the same time, gives to his decisions the character of a short-time solution.

B. Integrated National Program After Establishment of Military Government

The great surplus of generating capacity in Germany after demand of war industry are cut off means that no nation-wide control program would have to be carried out by the Allies if it were possible to obtain sufficient fuel to meet adequate requirements for power. This, however, is considered unlikely; present estimates allow for only twenty percent of the estimated 1943 allotment of coal to the power industry. Production of the twenty to twenty-five billion kwh. per year which it is estimated will be required will thus necessitate the most careful controls to prevent waste of fuel and power.

1. Essential background information.—The Nation-wide Allied authority over electricity will need current information which can serve as a background for the prompt change-over from the local, uncoordinated scheme, to a national, coordinated scheme. On the basis of the survey reports, the condition of the industry in all parts of the country should be determined, preparatory to setting requirements in balance with production facilities. Officers to be responsible for electricity should learn from other Civil Affairs officers what industries will operate during the period of military government, in order to calculate industrial requirements for electricity. Equally important, the problem of allotments of vital materials necessary in the production of power—coal, lubricating oil, transformer oil, electrotechnic equipment—will require that these officials confer with and learn the plans of officers responsible for these fields.

2. Requirements.—It is impossible to calculate accurately the amount of energy that should be produced in occupied Germany, without knowledge of the extent of damage and of the over-all economic plan for the country. The following discussion attempts to take cognizance of the most important elements in the situation and to present general estimates of the probable essential civilian requirements.

a. Essential utilities and services.—Concerning hospitals, water supply, public transportation, street lighting, etc., no precise estimate of requirements can be made. As a rough yardstick about half as much current as is planned for domestic consumption may be assumed necessary, or about two billion kwh. (roughly 100 kwh. year per domestic consumer). This consumption can probably not be reduced very much in the interest of public safety.

b. Household users.—Average household consumption in Germany is estimated at not more than 200 kwh. per year. Assuming approximately 20 million consumers, a total of about 4 billion kwh. or not more than 5% of the total wartime energy production is used for this purpose. Since this consumption is mainly for lighting, relatively little saving can be made. Under occupation conditions a minimum of about 150 kwh. consumption per residential customer may have to be provided.

At present, electric power is not officially rationed to households in Germany, but a semicompulsory campaign to reduce household consumption is in force: Consumers are expected to reduce their consumptions by between 10 and 30 percent of previous amounts. This system should be continued during occupation and stiffened, if necessary, by shutting off consumers not complying with the regulations as shown by meter readings and by cutting off the power supply altogether during certain hours of the day and night.

c. Industrial users.—Since most of the large electricity consumers are war industries, industrial requirements, even with resumption of considerable peacetime production, will be only a small fraction of wartime output. Nearly one-half of wartime consumption is absorbed by the electrochemical and electrometallurgical industry alone. A very rough estimate for industrial requirements during at least the first months of the occupation would be 15–20,000,000,000 kwh. on an annual basis.

d. Electrified railroads.—The German National Railway consumed about one billion kwh. in 1938 on its electrified lines (representing only a little over 4 percent of the total track). Present consumption is estimated at 1,500,000,000 kwh. per year.

e. Estimated total requirements.—The present consumption of electricity is estimated roughly at 80,000,000,000 kwh. (compared with 1938 consumption of over 45,000,000,000 kwh.). The elements considered above lead to an estimate of 20–25,000,000,000 kwh. annually, from public and private plants together, for a barely functioning peacetime economy, such as it is assumed will exist during at least the first months of the occupation. This is approximately equivalent to the total amount of electricity consumed at the low point of industrial activity in 1932 and 1933.

f. Possible export of electric energy from Germany.—Germany could make an economic contribution to liberated areas by exporting electric energy. Systematic international interconnections, however, have not been developed in continental Europe to any considerable degree although proposals have frequently been made in pre-war times. The only high-tension transmission lines of considerable capacity connect Switzerland and Austria with Germany, from which countries about 1,500,000,000 kwh. are presently being imported, contributing about 90 percent of Germany's total power imports.

There exist, in addition, interconnections with France, Belgium, the Netherlands, Denmark, Czechoslovakia, and Poland capable of handling only a relatively small amount of energy. Not more than about 100,000,000 kwh. are now sent over these lines into Germany. This flow of energy could be reversed and probably be increased to some extent. Altogether the energy export from Germany to those countries might be stepped up to a magnitude of one to two billion kwh. with the present size of transmission and transformer equipment. Such amounts of energy would be the equivalent of only 750,000 to 1,500,000 tons of hard coal.

3. Deciding which plants to operate.—With a reduction to less than a third of the wartime output of electric power, a relatively small number of superpower plants strategically located could provide the entire amount—assuming that the system is found relatively undisturbed or easy to rehabilitate. Under ideal circumstances the anticipated “post-hostility” load for the country as a whole could probably be taken care of by 20 to 25 very large plants which are well connected with the national network. Transmission losses will, of course, increase, but can probably be kept at a reasonable rate of between 15 and 20 percent. By careful national planning it appears possible to supply the largest part of the country from a number of selected brown-coal-burning plants in addition to making full use of the available hydroelectric plants. In this way considerable amounts of the much more valuable bituminous coal could be saved for other uses. Only the more outlying districts in the north and northeast and the bituminous coal areas in the Saar and in Upper Silesia might more rationally be supplied by bituminous coal. The quantity of coal necessary for these latter would be very small.

Since practically all the large plants are connected with the grid and operate in parallel, no great problem is expected to arise in coordinating the operation of the plants selected.

Power for the electrified railroads is provided from a special network of power plants and lines. The current (single-phase, 16 $\frac{2}{3}$ cycles) cannot be used for industrial purposes, except by use of special convertors. The bulk of the energy is generated in hydroelectric plants in Bavaria, a brown-coal plant in Central Germany, and a hard-coal plant in Silesia. Since these plants can be operated very economically, they should be kept going and their output used to operate the electrified lines, assuming, of course, that sufficient electric equipment for the lines remains intact.

The following considerations should determine the selection of plants to be operated:

- (1) A modern plant is preferable to an old plant.
- (2) A large plant is preferable to several small plants adding up to the same capacity.
- (3) A hydroelectric plant is preferable to a thermal plant if its operating characteristics permit it to supply the desired load.
- (4) A pit-head coal plant is preferable to a coal plant some distance away from the fuel supply.
- (5) A steam plant fueled by blast-furnace or coke-oven gas (if such fuel is available as a byproduct) is preferable to a plant using any other kind of fuel.
- (6) A plant burning brown-coal is preferable to one burning bituminous, particularly if bituminous coal is short.

(7) A steam plant (if not located at the mine) at a navigable waterway is preferable to one dependent on railroads for the shipment of supplies.

(8) A plant having a considerable stock of operating materials is preferable to one without such stocks.

In order to determine the relative efficiency and the consumption of various types of fuel for different sizes of plants under varying operating conditions, the following table may be of value :

Table I.—Caloric Consumption of Steam Power Plants per Kwh.

(Source: Schönberg und Glunck, Landeselektrizitätswerke, 1926)

Size of plant, Kw.	Hours of operation	Fuel used		
		Lignite, 3,600 B. t. u.	Bituminous coal, 12,600 B. t. u.	Pulverized coal, 10,800 B. t. u.
12,000 regional supply	24 per day	19,740	17,108	16,732
	16 per day	21,150	18,193	17,690
	8 per day	25,350	21,432	20,567
	2 per day		39,480	36,585
Local supply	3,600 per year	24,816	21,056	20,304
24,000 regional supply	24 per day	18,913	16,281	15,905
	16 per day	20,266	17,315	16,826
	8 per day	24,327	20,417	19,552
	2 per day		37,675	34,780
Local supply	3,600 per year	23,688	19,928	19,176
48,000 regional supply	24 per day	18,462	15,830	15,341
	16 per day	19,769	16,807	16,206
	8 per day	23,650	19,740	18,762
	2 per day		36,096	33,088
Local supply	3,600 per year	22,936	19,176	18,424
96,000 regional supply	24 per day	18,236	15,604	15,040
	16 per day	19,514	16,563	15,867
	8 per day		19,402	18,319
	2 per day		35,306	32,223
Local supply	3,600 per year	22,560	18,800	18,048

4. Repairs and replacement of equipment.—The large electric power capacity available in practically every part of Germany and of which only a small part will need to be used in the beginning, will constitute a natural “stockroom” for repairs and replacements. It is almost certain that in a contracting industrial economy such as the one which will exist in Germany under post-fighting conditions, most repair and replacement materials can be taken out of existing equipment no longer in use. In this respect it should be remembered that the majority of German workers in the employ of power plants are highly skilled and well trained to cope with emergencies. If at all possible their services should be used and their recommendations for specific repairs be followed. Wherever it is possible to arrange for one German company to purchase or lease repair parts from another, this should be done. In case Allied officers become parties to any contracts, or in case expropriation is necessary, very careful records should be kept as protection against future claims.

Considerable trouble may be experienced with underground distribution lines, and practically all German cities have underground systems. If city streets are badly cratered and the electric cables and ducts broken in many places, it may be preferable to build simple overhead lines in the badly damaged parts of cities. Practically any type of wires, poles, insulators, etc., can be used, while suitable cable sizes must be provided for underground systems. But it will fre-

quently be found that multiple circuits exist in the more important systems so that the remains of one circuit can be used to repair a second circuit.

The large German electrotechnical manufacturing industry, with plants in most parts of the country, will probably be able to supply certain parts that cannot be taken from existing equipment. For any situation where difficulties arise in providing technical equipment, a thorough search within Germany should be made before requisitioning the items from abroad.

5. Operating supplies.—a. Coal.—If this electric power industry is allotted only about twenty percent of its present coal consumption, some mechanism must be provided for the distribution of coal among the various plants. The most feasible method is to utilize the machinery already performing that function—the Electricity Supply Business Group (Wirtschaftsgruppe Elektrizitätsversorgung) of the National Power Group. It is suggested that the nation-wide Allied agency establish contact with the national headquarters of the Business Group, and learn from it which part of the Group handles the compilation of plants' fuel requirements and then assigns quotas on the basis of the over-all coal quota of the electric power industry. The staff of this part of the Group should then be separated from the rest, and placed under the control of the Allied agency in a staff capacity.

b. Diesel oil.—In view of the probable scarcity of Diesel oil, the use of Diesel plants should be restricted as much as possible. Their main usefulness will be as emergency plants for initial and very limited service. Fuel should be allocated by the group which allocates coal.

c. Other petroleum products.—Greases, lubricating oil, and transformer oil will probably also be very scarce, and will have to be provided mostly by the occupying forces. Some exceptions may occur: Transformer oil can be reprocessed in Germany by special facilities known to exist there. The same allocating arrangements should be used here as for coal and Diesel oil.

6. Management of plants and manpower problem.—The larger plants, if found to be in operating condition, will be in a position to serve considerable areas. Great care should be taken to keep these plants intact and to protect them against sabotage. Plants of 50,000 kw. and over and some key transformers and dispatching stations deserve the constant supervision of Allied engineers. Guards should be placed at all important generating plants, transformer stations, distribution substations, dams, etc. Transmission lines require only a minimum amount of supervision since any damage to them can be repaired rapidly.

The former operating staff should be kept at the plant if possible. It may be necessary to remove the supervising personnel and the higher administrative officers, but the rank and file will probably be found willing to cooperate. A difficult problem will arise if no personnel can be found locally. In the case of municipally owned plants it is likely that some of the technical crews of the city-owned utilities may be reconstituted and used for all municipal services wherever needed.

The commercial departments of the power plants will not require any particular attention in the beginning. It will be to the owners'

interest to see to it that billing is resumed as fast as possible. The entire staff of the plant, of course, must be admonished to perform efficient service or to face punishment.

As soon as feasible the operation of the plants should be turned back to the former staff, after sufficient precautions have been taken against inimical actions.

The following data give an idea of numbers of personnel needed to operate power systems.

Hydroelectric plants:

For each generator include switch gear----- 1-2 men per shift.

For water installations:

Dam or reservoir----- 1 man per shift.

Large tanks and other equipment----- 1-2 men per shift.

Other installations----- 4-8 men per shift.

Thermal plants:

For boilers (units of 1 or 2)----- 1 man per shift.

For auxiliary boiler equipment (4-8 boilers)----- 1-2 men per shift.

Per each generator including switch gear----- 1-2 men per shift.

For all other equipment, such as coal dumps,
conveyors, removal of ashes, repair shop, etc.-- 40-80 percent of the personnel needed for boilers and machines.

In addition: Supervising personnel.

7. Property relations.—Conditions during the occupation will not be conducive to orderly transfers of property in the industry from one owner to another. It is recommended that all ownership arrangements be “frozen” during the period of military government.

The publicly owned plants, the representation of public authorities on the boards of directors of mixed-ownership companies, and plants classed as war industries, will be taken into custody by Allied Property Officers (see the Civil Affairs Handbook on German Public Property). It may also be that some companies not otherwise scheduled to have Property Officers appointed will be completely broken up by prosecution of directors as war criminals, etc. The need to operate such plants or to lease or sell parts of them for repair purposes to other companies, will call for the establishment of a legally responsible direction. In such cases, also, a Property Officer should be appointed. These officers should not be officially charged with administrative duties under the Allied control agency, but they should collaborate closely with this agency and its thirteen district staffs.

Since Property Officers are responsible—using other criteria than those of the electric power agency—for deciding whether or not public property should continue to perform economic functioning, all decisions concerning these plants should be cleared with the electric power officers. Also, an agreement whereby all technical recommendations made by the electric power agency would be binding upon the Property Officers, is greatly to be desired. An even more desirable arrangement would be for a general policy to be adopted providing for personnel of the electric power agency to be appointed Property Officers in as many instances as possible.

8. Allocation of electricity.—Although the purposes for which electricity is to be used during the occupation will differ from those which now have high priority, the present mechanism of control, the Reich Office for the Electricity Industry, should be capable of handling the anticipated electricity shortage problem during occupation without sweeping changes. It is suggested that the politically acceptable mem-

bers of the staff of the *Reichsstelle* be subordinated to the nation-wide Allied control agency. Its districts should also be retained and used as the districts for allocation during the occupation. Since this is apt to be the principal activity of the Allied authority at the regional level, it is suggested that these same thirteen districts, rather than the districts of the Electricity Supply Business Group, be used as the pattern for the districts of the field agents of the nation-wide Allied agency.

C. Administrative Organization (see Chart at end of this section)

The recommendations set forth in the preceding pages point to an organization combining Allied direction with German personnel. So far as the use of the latter is concerned, it is assumed that the general Allied policy with respect to purging of Nazi elements will be followed, especially in policy-making and general administrative areas.¹

1. Nation-wide Allied electricity control agency.—High-ranking Allied officials who know power administration, with legal advisors and German technical advisors drawn from German administrative agencies and electric power firms. Functions:

a. Direct the engineers who make the survey. Receive the reports, determine amount, type, location, and condition of available generating capacity, transmission facilities, distribution nets.

b. Receive reports of requirements of each locality, and determine what sources of power should supply requirements of each.

c. Determine which plants should be repaired in connection with the national program, and direct engineers in planning which if any plants should be dismantled for repair purposes; direct in general the time-scheduling and administration of the repair program.

d. Issue any necessary orders in connection with expropriation or transfer of repair and replacement parts, wherever possible under authority of German laws.

e. Confiscate and seal up the records of the German agencies which are to be abolished or whose legal powers are to be restricted, if such records are not needed for administrative purposes.

f. Take the necessary legal steps to abolish or change the character of the German controls where necessary.

(1) Abolish the office for the provision of power (*Amt für Energieplanung*). Retain technical experts, if politically acceptable, as advisors to the nation-wide Allied control agency.

(2) Detach the national staff of the Reich office for the Electricity Industry (*Reichsstelle für die Elektrizitätswirtschaft*) from the office for the Provision of Power, and subordinate it to the nation-wide Allied control agency. Place the regional "load allocators" of the Reich office under the district offices of the Allied agency. The Law under which this function operates—the law for Protection of the Electricity Supply of 1939—should be kept in force.

(3) Establish a raw materials allocating staff with nation-wide and regional units in the nation-wide Allied control agency. Germans now performing this function as employees of the Electricity Supply Business Group (*Wirtschaftsgruppe Elektrizitätsversorgung*) should be employed under Allied supervision.

¹ See CA Guide, *General Principles for the Dissolution of the Nazi Party and the Elimination of Nazis*.

(4) If desired by the Allied agency, give to the Electricity Supply Business Group the status of a voluntary trade association, by abolishing all its compulsory features and its administrative functions.

(5) Authorize local Military Government officials to proclaim rationing to trades and households in those localities where it is needed. Eliminate German national rationing controls.

(6) Retain the 1938 law for uniform electricity rates. Whatever agency has the price-control function should administer the law. Even if general price control is abolished, this law should be retained, enforced by whatever German agency seems most appropriate.

(7) Abolish the Special Trustee for Saving of Power, and power-saving engineers in factories.

(8) Retain the Energy Economy Act of 1935 (briefed in Annex I to the Appendix). This law should be kept in force because it bestows upon the government broad powers over individual power producers and over the system as a whole. Originally assigned to the Ministry of the Economy, the execution of this law has been transferred to the General Inspector for Water and Power (now in the Ministry of Armaments and War Production). It is suggested that a proclamation be issued which will transfer all of these powers to the nation-wide Allied control agency. The various parts of the agency most suited would then exercise these powers as occasion arose. Politically acceptable Germans now employed by the General Inspector for this work could retain administrative responsibility under Allied supervision.

2. Raw material allocating staff.—This staff will be attached to the nation-wide Allied agency as a staff organization, and will transmit its orders to the industry through the thirteen district agents of the Allied agency. Whatever procedures with respect to centralization or decentralization of this operation have been followed heretofore could doubtless be continued.

The staff will contact the agencies responsible for allocating coal and other raw materials among the various industries, present statements of needs to these agencies, and obtain allotments. It will reallocate these raw materials to the individual companies and plants which it is desired to keep in operation, through the intermediation of the thirteen district offices, supervising the fifteen district staffs which have been taken over from the Electricity Supply Business Group.

3. Electric current allocating staff.—This staff will consist of the German personnel formerly performing the same function under the name of the Reich Office for the Electricity Industry, directed by perhaps one or two Allied officers; it will be attached to the nation-wide Allied agency as a staff organization, and will transmit its orders to the field through the thirteen field agents of the Allied agency. Previous procedures could doubtless be continued. Orders from the German personnel to power companies should all clear through Allied officers; a counter-signature is suggested. Functions:

a. Make the over-all regional allocations of current.

b. Implement the allocation of coal and other raw materials by checking up to see that the plants produce in proportion to the supplies allotted to them. A quota system, or perhaps a mere reporting procedure, administered through the field offices, would probably be appropriate.

4. Routine regulating group.—German personnel, now employed by the General Inspector for Water and Power (part of the Office for the Provision of Power) or by the Ministry of the Economy, and concerned with enforcement of the routine regulations of business operations, company financing, etc., should be assembled together to form this group. A fairly large proportion may be expected to be old-line civil servants; the general policy toward civil service personnel, with respect to political purging, should be followed.

5. Engineers unit.—Composed of Allied officers and enlisted personnel and attached directly to the Nation-wide Allied agency, for convenience in dispatching its units to whatever parts of the country may need them. At the outset it will have to be quite large, in order to conduct a thorough survey, but as soon as this task is finished, it should be reduced to a small operating group. The German organization whose functions it will take over is highly political (Nazi) in its origins and its concept of its duties. Although some of the skilled laborers who are members might be recruited to assist Allied engineers in repair work, it would be dangerous to retain the name and form of the *Technische Nothilfe* (TENOTN), or to retain its administrative chiefs.

Once order has been fully restored and the power supply is on a normal operating basis, the Engineers Unit could be relieved of its duties, leaving all repair and maintenance work to the companies.

6. Thirteen field offices of the nation-wide agency.—Competent administrators, with electric power experience, aided by German staffs handling raw material allocation and electricity allocation. Functions:

a. Serve as the contact with the large public supply companies, and with Allied Property Officers for large companies.

b. Coordinate the local utilities officers' work under the nation-wide program.

c. Administer all portions of the national program which require attention at the district level.

7. Local utilities officials.—Principal qualification is administrative skill, but technical knowledge is also important. Such officers should be responsible administratively to the officer in charge of the locality, and functionally to the field officer of the Allied electric power agency. They would use the services of the engineers, which they would requisition through the field officers, except for the survey, which will be provided automatically. Functions:

a. Prepare plan for production and consumption of power in the locality, in advance of occupation.

b. Participate, along with other officers governing the locality, in the scheduling of electricity requirements for the armed forces and the civilian population.

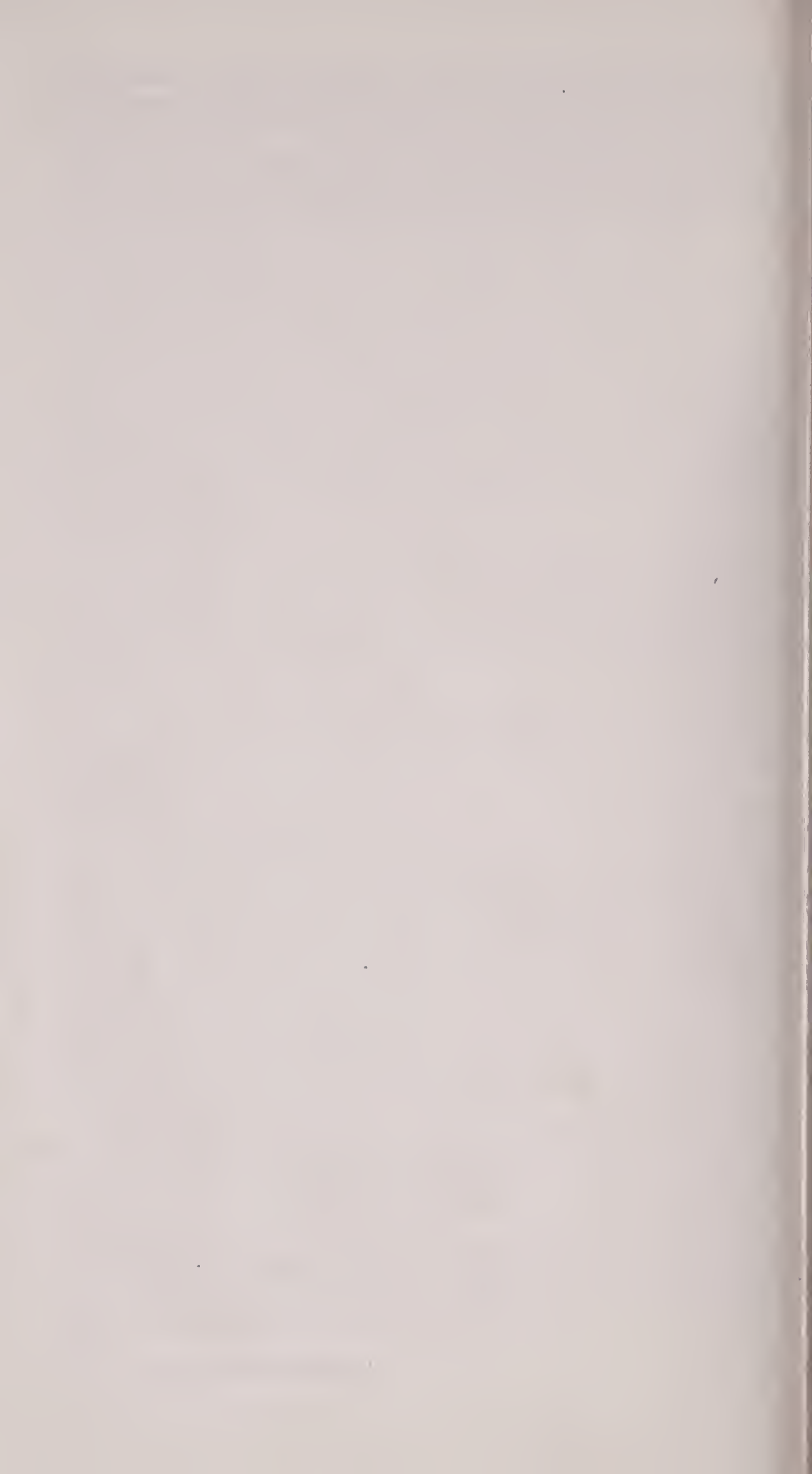
c. Determine, with the aid of the engineers' survey report, what part of the local generating capacity to operate.

d. Make initial, provisional arrangements with local plants or with the company providing power from outside, for the supply of local requirements.

e. Arrange with the commander of the Allied forces for economical use of current by Allied troops. This may entail very strict controls in any deficit or near-deficit areas. (This was a major problem in the occupation of Koblenz after World War I.)

f. Work with and for the field agent for the district in developing the program of local production and consumption of power under the integrated nation-wide plan which will be introduced after the first few weeks by the nation-wide Allied agency.

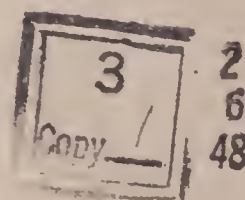
g. Maintain a working relationship with all officials of power companies, with Allied Property Officers appointed in the power companies, and with the other Allied officers assigned to the locality.



CIVIL AFFAIRS GUIDE

**ELECTRIC POWER SYSTEMS
OF GERMANY**

APPENDIX



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WAR DEPARTMENT,
Washington 25, D. C., 20 June 1944.

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By order of the Secretary of War:

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Chief of Staff.

OFFICIAL:

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Major General,
The Adjutant General.

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A. Description of the System

1. Introductory Statement. Germany's electric power industry, highly developed during the period from the end of World War I to 1929 with substantial aid from American capital, has been the subject of further careful development since 1933. The primary goals of this development have been to minimize the possibility of interruption of supply by military operations, and to meet the increasing requirements of the Reich's war industry. Electricity plays a vital role in Germany's national economy as a source of power, heat, and light. The Reich depends on electric power for about three-fourths of the motive power used in her factories, for production of aluminum, other light metals, and synthetics, electrothermal processing and welding, traction for important railway lines, and communications systems, as well as for home and farm use. Power is generated in two types of plants: "public" (those stations feeding centers of population through transmission and distribution networks) and "private" (plants which wholly or mainly supply large individual factories). Industrial consumers utilize both types of supply. Non-industrial consumers are generally supplied by public enterprises. Since the beginning of World War II there has been a trend toward the sale of power generated in "private" plants to "public" companies, to supplement the latter's supply. Communications systems frequently buy current from public plants, but in addition have generating plants of their own, to guard against

interruption of power supply. Electricity for traction is supplied either from public supply undertakings, or from special Reichsbahn or other generating plants.

2. Sources of Energy. Three main sources of energy provide the basis for Germany's supply of electricity: brown coal, hard coal, and water. Although the Nazis in the beginning of their rule attempted to discriminate in favor of water power, because of the need for solid fuels in the production of many critical materials and particularly synthetics, about 80 percent of the total power supply is still generated from hard coal and brown coal. The Rhenish-Westphalian area depends principally on the hard coal of the Ruhr and the brown-coal deposits west of Cologne; the central German area on extensive brown-coal fields; and the South (Bavaria, Baden, and Austria) on water power, mainly from the Alps. These three main generating areas are interconnected, and form the framework of the highly developed grid system.

The kind of energy-source influences the location and general type of plant found within each area. The largest power plants in Germany today burn coal. Hard coal, insofar as it is used for generation of electricity, can be transported without excessive costs to medium-sized power plants near heavy consuming areas, and can also be used in pit-head plants. Brown-coal stations are generally situated on or very close to the deposits from which they obtain their

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supplies, since the low calorific value of the fuel in its raw state makes its transport uneconomical. It is, however, far cheaper than hard coal when burned in great quantities by super-power stations in the immediate vicinity. Private plants serving the coal, iron and steel industries -- mainly in the Ruhr area -- are frequently users of coke-oven and blast-furnace gas, a by-product of the industry. It is estimated that between 7 and 8 percent of the total electric power supply is at present derived from this source. Individual water power stations are usually small in comparison with thermal plants. On the other hand, a number of individual plants are in many instances combined into groups with a large aggregate capacity, especially where the resources of an area or river have been developed for multiple use.

3. Consumption. Germany consumes more electric power per capita than any other European country except Sweden, Switzerland, and Norway. Losses in transmission make net consumption about ten percent less than total production. In 1937 industry and traction together consumed about 80 percent of the total supply. At present the electrochemical and light-metal industries are by far the largest consumers of energy. Most of their requirements are obtained from the public supply system or from special firms nominally organized as public utilities.

4. Production and Capacity. Germany had within its 1937 frontiers a total installed capacity of 15,917,814 kw., and a production of 48,969,190,000 kwh. Of these totals, public
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supply plants contributed 58 percent of installed capacity and 56 percent of output. Present total production of power may be estimated roughly at 85,000,000,000 kwh. (installed capacity may now be about 22-23,000,000 kw.), of which about 60 percent is produced by public supply enterprises. In addition, Germany imports about one billion kwh. per year from Switzerland, and 600,000,000 kwh. from Austria, France, and Belgium.

Public supply plants are, in general, less numerous and of larger size than private plants. In 1937, of the 1,620 public plants, 18 had a capacity of over 100,000 kw.; of the 5,340 private plants, only two had a capacity of more than 100,000 kw. The largest private industrial plants are those connected with mining, iron and steel, chemical and synthetics enterprises.

Within the last few years, a trend toward larger plants has attained significance. In 1937, the latest year for which official figures were published, only 20 plants were over 100,000 kw. in size. These accounted for 23 percent of total capacity and 32 percent of total output. At present 50 stations are estimated to be in this size category, accounting for 40 percent of total capacity and 50 percent of total output. About half the plants added to this group are entirely new; the others represent enlargements of previously existing plants. Most of the large new stations have been built to serve the synthetics industries. At the same time,

plants under 10,000 kw. in size appear to have declined in number.

5. Public Ownership. A characteristic feature of the German public supply system is the part played by national, state, and local governments in its development and ownership. This participation has taken two forms: (1) the establishment of corporations owned entirely by governmental bodies; and (2) the creation of "mixed ownership" undertakings, the capital stock of which is held partly by government authorities and partly by private interests. At present, about 90 percent of the public supply facilities in Germany are owned by governmental bodies or "mixed" companies.

6. Principal Public Supply Systems. The historical development of the electric power supply industry has strongly influenced its present-day geographic form. Early developments were financed largely by the electrotechnical industry, controlled in turn by cartels which determined under what conditions business should be conducted. As a result, the country was divided into a number of well-defined territories within each of which only one company or financial group operated. The phenomenon of a high degree of interconnection, stimulated by growth of load, advance of technical knowledge, and development of super-power stations, has not changed the fundamental pattern of supply districts, each controlled almost exclusively by one operating group.

The largest and most important groups are described below by area.

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a. The Rhenish-Westphalian Industrial District. Largest of all German public supply companies, controlling roughly one-eighth of the Reich's electric power production, is Rheinisch-Westfälisches Elektrizitätswerk (RWE). Though public bodies held much of its stock, the RWE is the only large electric power company in which private capital dominates. Besides the properties which it operates directly, the corporation is an important holding company owning large shares in firms controlled by other power supply groups. With its subsidiaries, it serves the Rhineland and parts of Westphalia, Hesse-Nassau, Hanover, Rhine-Hesse, Oldenburg, and the Saar -- a highly industrialized territory and the Reich's most important area of electric power consumption. Its main supply comes from large steam plants located on or near Ruhr hard-coal mines and brown-coal mines west of Cologne, supplemented by important amounts of hydroelectric power sent from the south over RWE's 380/220-kv. trunk line. Many medium-sized and smaller industrial stations, principally belonging to Ruhr hard-coal mines, feed the RWE grid. Several of its fairly important subsidiaries have well-defined supply areas of their own.

RWE has extensive holdings in coal mining property, particularly in the Ruhr. Its policy of economic self-sufficiency has also led it to the acquisition of construction companies. The company has important interests in some of the large hydroelectric works in Austria and south Germany from which it draws current. Other important interests of RWE branch out into electric streetcar lines and gas-supply enterprises.

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b. Central and Northern Westphalia. Vereinigte Elektrizitätswerk Westfalen AG, (VEW) Dortmund operates in the territory north of that of RWE, serving two-thirds of the province of Westphalia. VEW is entirely publicly owned, chiefly by the province which it serves, the cities of Bochum and Dortmund, and various municipal bodies in the area. VEW is a net importer of power from other firms; little or no electricity is sold outside the supply area. About 65 percent of its current is sold to industrial users. Its main consumption center is the city of Dortmund. The main generating stations are four large hard-coal plants, supplemented by a few small hydroelectric plants. Energy requirements which VEW cannot cover with its own generating capacity are met by purchase from Steinkohlen-Elektrizität AG, Essen, a subsidiary of the Westphalian coal syndicate. VEW also has fairly important holdings of gas works and other public utilities.

c. Bavaria. Bavaria is one of the richest sections of the Reich in water power and one of the poorest in coal. It draws its electric power mainly from large state-owned hydroelectric plants and distributes it mostly through smaller retailing plants in which private ownership is fairly important.

(1) Bayernwerk AG. The connecting link between the producing and distributing groups is the state-built high-tension net. It is operated by a special company, the Bayernwerk AG, Munich, now owned 50 percent by the state of Bavaria and 50 percent by the Reich's holding company, Vereinigte

Industrieunternehmungen AG. Main supplies of energy for the net are drawn from the Walchensee and Mittlere Isar hydroelectric developments, two state-owned companies which Bayernwerk operates under a community-of-interest agreement. Apart from this, Bayernwerk owns only the highly important 120,000 kw. brown-coal station at Schwandorf, which is fueled from local sources. Tiroler Wasserkraftwerke and Rhein-Main-Donau AG contribute important amounts of current to the Bayernwerk net, as does Grosskraftwerk Franken's steam station at Nuremberg. In summer, surplus hydroelectric power is sold to RWE, Mainkraftwerke AG, ASW, and Elektrowerke. In winter, the energy flow is reversed.

Other important concerns operating within Bavaria are:

(2) Städtische Elektrizitätswerke München, which supplies about 85 percent of the requirements of the city of Munich from its steam and hydroelectric generating stations;

(3) Grosskraftwerk Franken AG, Nuremberg, which serves the city and its environs;

(4) Lech Elektrizitätswerke AG, Augsburg, which serves southwestern Bavaria, including the electrochemical industries;

(5) Innwerk AG, Munich, which supplies the important aluminum industry along the Inn River.

d. Baden. Baden is served mainly by Badenwerk AG, Karlsruhe (BADAG), owned entirely by the state of Baden. Production is based on the plentiful water power resources of the region, which also supply significant quantities of power for export

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to other regions. Badenwerk covers most of northern and central Baden directly, supplies much of the energy for other distributing firms in this section, and owns the high-tension grid system covering the whole state. Only in the southwestern corner, between the French and Swiss borders, are other firms predominant, mainly Kraftwerk Ryburg-Schwörstadt AG.

Grosskraftwerk Mannheim AG, owned by the city of Mannheim, Westmarkwerke, and Badenwerk, owns one of the largest steam plants in southern Germany. A large part of its output goes to the Badenwerk grid through Rheinau; other important amounts of power are supplied to the Mannheim district, Westmarkwerke, and Elektrizitätswerk Rheinhessen AG.

South Baden is supplied mainly by the large, low-head, continuous-flow Rhine power stations operating principally for the chemical and metallurgical industries. Without exception, these plants are located directly on the German-Swiss border or a short distance from either frontier. Ownership is divided between German and Swiss capital. Significant amounts of power from these stations are also sent north to feed RWE territory. These border stations can generate about 2,500,000,000 kwh. per year, most of which is at present used by Germany.

e. Wurtemberg. Wurtemberg is served mainly by the Energie-Versorgung Schwaben (EVS), founded in 1939 under Nazi pressure by forced consolidation of smaller firms. Including its main subsidiary, Überlandzentrale Jagstkreis AG, it serves

about three-fourths of the state. More than 95 percent of the capital stock of EVS is owned directly or indirectly by local and state governmental bodies. Most of its energy requirements are purchased from the Baden and Bavarian networks.

Oberschwäbische Elektrizitätswerke (OEW), serving southern Württemberg, draws most of its power from its steam plant at Biberach. The city of Stuttgart is supplied by an important municipal enterprise, Technische Werke der Stadt Stuttgart (thermal plants), which has a power-exchange agreement with the EVS.

f. Thuringia. Thuringia's electric power supply is dominated by Thüringenwerk AG, Weimar, owned by the state of Thuringia, Preussenelektra, and ASW. Only about one-fourth of its total sales are produced from its own power plants or those of its subsidiaries. The company buys most of the energy for the eastern part of the state from the Böhlen plant of ASW; for the west, from Preussenelektra through Borken; and for the southern section around Sonneberg, from Bayernwerk.

g. Saxony. Electric power supply in the state of Saxony is dominated by the state-owned AG ["]Sächsische Werke, (ASW) Dresden, whose interests extend also to the fields of low-temperature carbonization coking and brown-coal mining, the company owning about two-thirds of the brown coal fields in the state. The chief source of energy is brown coal, supplemented by smaller amounts of water power and hard coal. Purchases of current are mainly from Elektrowerke. Energy is exchanged with Thüringenwerk and Bayernwerk. Main generating

stations are at Böhlen, Hirschfelde, and Espenhain-Mölbis. Some of the large consumers of energy are Braunkohle-Benzin AG, F. A. Lange Metallwerke AG, Georg Liebmann, Sächsische Erzbergwerke GmbH in Freiberg, Elektrochemische GmbH in Hirschfelde, Reichsbahndirektion Dresden, and the cities of Leipzig, Dresden, and Klingenthal.

h. Central Germany and Silesia. Much of central Germany and Silesia form the province of Elektrowerke AG, owned by the Reich through its holding company VIAG (Vereinigte Industrieunternehmungen AG). Elektrowerke is second only to R.E in its output of electric energy, only about one-third of which goes to retailers. These, however, include virtually all the important distributors in central and eastern Germany. The firm sells little or no current directly to small consumers. The bulk of its output goes instead to important industrial works, particularly in the fields of electrochemistry and electrometallurgy, such as the Piesteritz nitrates plant, the Lauta aluminum plant, the Zschornowitz plant of Elektroschmelze GmbH, the Bitterfeld aluminum, magnesium, and chemical plants, the Lonza-Werke GmbH, the Buna plant at Schkopau, the iron works at Warstein, the Giesche zinc refinery near Magdeburg, and the synthetic gasoline plant of Braunkohle Benzin AG at Magdeburg. The company also shares equally with BEWAG the 100,000 kw. load of the Berlin subway and ring-lines of the Reichsbahn. Main production of energy comes from the company's large brown-coal plants at Golpa-Zschornowitz, Lauta, Trattendorf, and Vockerode. Since 1936 Elektrowerke has

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made substantial use of energy from Lower Silesian industrial plants, and has, in addition, increased its purchases from Upper Silesian colliery stations.

Among Elektrowerke's most important subsidiaries in Central Germany are: (1) Braunschweigische Kohlenbergwerke, Helmstedt, (BKB); (2) Überlandzentrale Helmstedt AG (a 100 per cent owned subsidiary of BKB); (3) Mitteldeutsches Kraftwerk Magdeburg AG (Mikramag); (4) Elektrizitätswerk Sachsen-Anhalt (ESAG) Halle; (5) Elektrizitätsversorgung im Mansfelder Bergrevier AG, Halle (owned 59.7 percent and managed by ESAG).

Elektrowerke's interests in Silesia are considerable and a close cooperation and exchange of energy exists between Elektrowerke and most of the companies serving Silesia. The largest of these firms are Schlesische Elektrizitäts und Gas AG Gleiwitz and Elektrizitätswerk Schlesien AG.

i. North-Central Germany. Preussische Elektrizitäts AG (Preussenelektra; PEA), owned entirely by the state of Prussia, covers directly or through its subsidiaries most of north-central Germany from the Main River to the North Sea, including the provinces of Hesse-Nassau and Hanover. In the north it operates through its subsidiary, Nordwestdeutsche Kraftwerke (NWDK). Preussenelektra operates mainly as a producer and wholesale distributor. About four-fifths of its deliveries are for resale. Many of its distributors have become its subsidiaries. Its principal directly owned plant is the large brown-coal steam station at Borken, 19 miles southwest of Kassel, which is connected with the important pump storage

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plant at Waldeck, near Bringhausen. The main generating plants of NWDK are Unterweser bei Farge (near Bremen), a hard-coal station of about 200,000 kw.; and Wiesmoor, which, with a capacity of about 50,000 kw., is the largest peat-burning plant in Germany.

Hallendorf -- probably the largest industrial power station in Germany -- is located in Preussenelektra's territory, and supplies energy for the Salzgitter steel plant of the Hermann Göring Works. Total capacity is at least 250,000 kw., and possibly 400-600,000 kw. This station is believed to be connected with Berlin and Hanover.

Hamburgische Elektrizitätswerke (HEW), the second largest municipal public utility in Germany, adjoins the area of the Preussenelektra. The company has two large stations within the city, Tiefstack and Neuhof, which supply most of the city's needs. An interconnection exists with NWDK through its station in Harburg, whence additional energy is drawn.

1. Northeastern Germany.

(1) Berliner Kraft und Licht AG, owned jointly by the city, Preussenelektra, and Elektrowerke, serves over four million persons in the greater Berlin area, except for the suburb of Wannsee. A dozen power plants in the area, of which Klingenberg and West are the most important, supply about three-fourths of the city's needs. Other requirements are drawn from the central German brown-coal stations of Elektrowerke and MEW through the Friedrichsfelde switching station.

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(2) Märkisches Elektrizitätswerk. Markisches Elektrizitätswerk, (MEW) covers most of Mark Brandenburg, Pomerania, and Mecklenburg (except the cities of Berlin and Stettin). It has a large unified supply-area, consisting of sparsely populated agricultural country with a comparatively low consumption of electricity. Its largest plant is a brown-coal station at Finkenheerd, near Frankfurt a. d. Oder. Energy requirements of MEW customers are met in part by purchase of current from the Elektrowerke and Grosskraftwerk Stettin AG.

(3) Ostpreussenwerk AG. Most of East Prussia is served by Ostpreussenwerk AG, owned entirely by public capital. The company produces almost all its own requirements, mainly from steam plants, for which fuel is imported from Central Germany or Poland. Generating capacity was expanded in 1940, in response to war industrialization of the province. The company's 60-kv. grid, running into Danzig and perhaps to Memel, is not connected with the main German network.

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B. Significant Developments During the War.

1. Precautions Against Air Raid Damage. The danger of air attack on the German electric power supply has been a matter of grave concern for the Reich since about 1935 and has forced development of the electric supply industry along lines intended to give maximum protection.

In this respect, the most important characteristic of the industry is the extensive power-transmission net which covers all Germany. Over one-fourth of the present high-tension^{lin} kilometrage has been constructed since 1935 under pressure and supervision of governmental and military authorities. In general, new construction has supplemented old lines so that there are at least two routes between important producing and consuming centers. Furthermore, connections between individual public utility companies have been strengthened, even where economically useless, to provide emergency supply to important consuming areas. Protection against bomb splinters is provided by devices such as blast walls. Large mobile transformers mounted on railway carriages are installed as regular equipment on certain lines, and are held in reserve for the whole grid system. At least twenty 100,000-kva. transformers for 220/110/10 kv. are known to have been constructed. Mobile switching units have also been developed, and whole switching stations may thus be moved by rail.

2. Pooling of Capacity by Connecting Industrial Power Plants to the Grid. Considerable progress has been made in connecting private industrial plants to the national grid system. Most of

the plants in this group are now connected, while the great number of small and medium/^{sized} industrial plants serve only as standby and reserve stations. All the small Diesel plants have probably been idle since the beginning of the war.

3. Increasing Dependence on German Coal. The steadily rising demand for bituminous coal and the practical impossibility of a further increase in its production have made brown coal the most practical fuel for thermal power plants apart, of course, from the use of by-product coke-oven and blast-furnace gas. The largest part of new thermal power plant construction since 1937 has consisted of brown coal plants built in the central German industrial region. With the cessation of war production this area will have an enormous surplus of power facilities.

4. Water Shortage. Since the fall of 1941, all Europe has been suffering from a severe shortage of water occasioned by a series of droughts. As a result, storage reservoirs are depleted and hydroelectric power production diminished. It is unlikely that there will be any basic change in the situation in the near future, since any normal reserve has been depleted. At present (spring 1944) gauge readings on the Upper Rhine and on the Danube are at a record low, and the annual loss of energy may reach several billion kwh. for the Reich and Austria as a whole.

5. Air Raid Damage to Power Facilities. Although power facilities have been relatively low on bomb-target priority lists, heavy attacks on large cities and on special industrial
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installations must have meant considerable damage to generating and transforming equipment within these two types of areas. Damage will have been partly repaired, but some units will have been permanently wrecked. On the other hand, some highly industrialized regions with large and numerous power installations have not yet been subjected to extensive bombing. None of the large hydroelectric stations in the Schwarzwald (Black Forest), the Upper Rhine, and the Alps have yet been damaged, nor has the Silesian area.

Some of the large electrical-equipment factories have been bombed repeatedly, probably with considerable permanent damage. The resulting reduced production capacity, however, should still be sufficient to provide replacement material for that part of the electric supply system which will be kept operating at the end of hostilities.

6. New Industrial Concentrations. Within the last several years, there has been a shift of emphasis in industrial activity from west to east. Expansion of existing facilities and development of new capacity (especially in synthetic oil, chemical, metallurgical, and similar industries) has taken place on a large scale, with possibly some actual transfer of industrial equipment and workers from heavily bombed areas in the west.

The two main centers of this expansion, within the borders of Germany proper, have been Upper Silesia and the central industrial region. The physical extent of the development is not precisely known. That its dimensions are large, however, is evidenced by its two-fold effect on the

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power system: (1) large new generating facilities have been built in these areas; and (2) the high-tension network has here been expanded greatly in excess of peacetime requirements.

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C. Present Administration of the German Electric Power Industry 1/

The German government has centralized the authority over all electric utility companies. It controls the construction and expansion of plants and power lines, allocates raw materials, fixes rates, allots energy among consumer groups, and directs its transmission within the high-tension network.

Since the outbreak of World War II, three principal agencies have been successively responsible for the controls:

- (1) The Ministry of the Economy (Wirtschaftsministerium), by its authority under the Energy Economy Act of 1935; by its supervision of the Reich Power Group (Reichsgruppe Energie) during 1934-41; and by allocating electricity through the Reich Office for the Electric Industry (Reichsstelle für die Elektrizitätswirtschaft) from 1939 to 1941;
- (2) The General Inspector for Water and Power (Generalinspektor für Wasser und Energie), created in 1941 and at that time given most of the authority that the Ministry of the Economy had had over the electric power industry;
- (3) The Office for the Provision of Power (Amt für Energieplanung) in the Ministry of Armaments and War Production, to which the General Inspector's electric power functions were subordinated in September 1943.

1/ A more complete treatment is to be found in Civil Affairs Handbook, Germany, 10A, Electric Power. Certain information presented here is more up-to-date than the Handbook treatment, and several important items omitted from the Handbook are treated here. The two should be read together. Another important source is the Civil Affairs Handbook, Germany, 2T, Economic Controls in Nazi Germany, especially pp. 5, 13, 14, 21, 89, 93, and 114-141. See also Annex I of this Appendix, which consists of briefs of three laws now in force which will be of importance to the occupying authorities.

Thus, at the present time, final authority over the electric power industry is located in the Ministry of Armaments and War Production.

1. Production of Power. The principal agencies dealing with the producers and the production of power are:

- (a) The Office for the Provision of Power (Amt für Energieplanung);
- (b) The Electricity Supply Business Group (Wirtschaftsgruppe Elektrizitätsversorgung) of the Reich Power Group (Reichsgruppe Energie);
- (c) The Reich Office for the Electricity Industry (Reichsstelle für die Elektrizitätswirtschaft);
- (d) The Reich Ministry of the Economy (Reichswirtschaftsministerium).

The Reich Power Group, functioning through its member, the Electricity Supply Business Group, is the chief agent of the Reich government for applying regulations and controls to the business operations of the industry. Formal responsibility for this function reposes in the Office for the Provision of Power as agent for the General Inspector. Three especially important laws concerning electric power introduced since the Nazis took power are: (1) the Energy Economy Act of 1935 (2) the Uniform Rate Act of 1938, and (3) the law for Protection of the Electricity Supply of 1939. The 1935 act gave legal approval to the partition of Germany into regions to be supplied by monopolistic companies but charged each company with the responsibility of providing adequate service (on the threat of expropriation) and with the duty of supplying all would-be consumers without discrimination. The law vested

broad regulatory powers on nearly every phase of company operation in the Ministry of the Economy. The Ministry of Armaments and War Production is the authority which now enforces most of the provisions of this law. The 1938 law, covering both wholesale and retail distribution, established the methods by which rates may be computed and fixed maximum rates. It is administered by the Reich Commissioner for Price Administration (Reichskommissar für die Preisbildung). The Electricity Supply Business Group, as a semi-governmental agency of which all producers of electric energy are required to be members and financial supporters, participates in the execution of both of these laws. The 1939 law established and assigned functions to the Reich Office for the Electricity Industry (Reichsstelle für die Elektrizitätswirtschaft) discussed in 2. below.

The present structure of the Reich agencies participating in the control of the industry is shown in the chart, "Government Control Over Electric Power Industry in Germany," at the end of this Appendix.

The Reich Office for the Electricity Industry is responsible for ascertaining that plants produce the amount of current required of them. The Office for the Provision of Power is responsible for the wartime program of expanding generating capacity. It functions through 13 regional power deputies. Government subsidies and credits for construction have played some part in new construction. Before the war, initiative for the building and operation of new plants came from the electric power company predominant in a given area,

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but such ventures required the approval of the Reich Ministry of the Economy. Standardization of equipment, which has been a major means of facilitating wartime plant expansion and repairs, has been assigned to the Central Ring for Electro-technical Products (Hauptringe Elektrotechnische Erzeugnisse), an instrument of the Reich Ministry of Armaments and War Production. An order of the Ring goes into force as law as soon as it is published in the Elektrotechnische Zeitschrift, a technical journal.

The Ministry of the Economy must approve any loan flotations by electric power corporations on the capital market and its consent is required for any legal reorganization of power companies. The Electricity Supply Business Group, now under the Minister of Armaments and War Production, exercises a large amount of implicit authority over corporate structure by virtue of certain laws and the requirement of reports and information on the economic condition of electric power companies.

Industrial self-supplying plants are similarly Reich-controlled. Those of any size are virtually all linked to the grid. They are required to produce power for the general supply whenever the regular supply plants are inadequate to meet the need. As public suppliers they come under most of the regulations governing the plants regularly engaged in the public supply business. An ordinance of 1936 requires all companies with a power plant of over 1,000 kw.

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installed capacity, even if they are not power-supplying concerns, to make reports to the Ministry of the Economy in the same way as power-supplying concerns.

Large power plants are, of course, subject to certain regulations applying to large industrial plants generally, e.g., they must employ power-saving engineers and labor-utilizing engineers, and the Nazi Party extends into the plants, with "cell leaders" (Berufsobmänner) distributed among the labor force.

Local distribution of power is regulated by municipalities in the form of control over rights of way. The Reich may overrule a municipality, however, and may represent the utility company in eminent domain proceedings as well.

2. Allocation of Electricity. Local needs vary, and the flow of electric power across the country fluctuates in volume and reverses its direction periodically. A given region may be a surplus area at one season and a deficiency area at another, in the production of electricity. Bavaria, for example, exports hydroelectric power in the spring and summer but imports power during the winter. Such exchanges are regulated carefully and the distribution of power to consumers within a region goes according to priorities. The agency which controls the shipment of current from one section of the Reich to another and enforces the priority scheme is the Reich Office for the Electricity Industry. In directing operation of the nation-wide grid

system it follows broad directives from the Office for the Provision of Power in the Reich Ministry of Armaments and War Production.

Its field representatives are called regional load allocators and district load allocators (Bezirkslastverteiler, Gaulastverteiler), attached to 13 of the 15 regional offices of the Ministry of the Economy (Bezirkswirtschaftsämter) and to the district economic chambers (Gauwirtschaftskammer), respectively. The monthly quotas of electric power which the Reich Office allocates to each of the 13 electric supply regions are further allocated by these officials, who determine the ultimate deliveries of power to local consumers according to priority.

3. Provision of Raw Materials for Power Plants.

(a) Water-Use Rights. All surface and underground waters of Germany are considered by long legal tradition to be a part of the public domain of the state (Land) in which they are located. Permission must be granted by the state (in Prussia by the provinces acting in behalf of the state) for any company, whether publicly or privately owned, to utilize water. A nearly universal practice is for the state to grant permission, in the form of a water concession (Wasserkonzession), with the stipulation that a percentage of the net income derived from use of the water shall be paid to the state.

(b) Procurement of Coal. Each thermal plant submits its claim for coal to the Electricity Supply Business Group.

The Group combines these claims and passes them on to the Reich Power Group. The latter then submits the claim for the Electric power and gas industries to the Reich Coal Association (Reichsvereinigung Kohle), which allocates whatever quota it sees fit. Since the Reich Coal Association is a part of the Ministry of Armaments, there is no chance of the power industry's not getting enough coal to meet its war production assignments. The quota for the power industry is then divided between electricity and gas. The Electricity Supply Business Group makes sub-allocations of coal to the individual electric power companies or plants.

4. Power-Saving Policy. There is a special Deputy for Power Saving (Sonderbeauftragter für die Energiesparung) responsible to the Minister of Armaments and War Production and to Speer as Commissioner General for Armament Tasks in the Four Year Plan. Under him are 13 power deputies who, together with the 13 regional load allocators (Bezirkslastverteiler) of the Reich Office for the Electricity Industry, supervise the rationing of energy to trades and households and allocate energy to industries. Also under the authority of the Special Deputy for Power Saving are the "power-saving engineers" installed in all industrial plants consuming over 500 tons of coal or 100,000 cubic meters of gas per year.

Rationing of electric power supplies is actually carried out by the local electric power company, according to centrally issued schedules. The local companies distribute the power and check the consumption of each individual user, enforcing limitations, if necessary.

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5. Normal Maintenance and Emergency Repair. The Technical Emergency Corps (Technische Nothilfe, "TENÖ"), an organization of over 100,000 skilled and semi-skilled volunteers, makes repairs to utilities destroyed by air raid, fire, flood, or other catastrophe. "TENÖ" is incorporated in ^{the} Ministry of the Interior as an auxiliary police force. Some of its units have moved with the German Army, restoring utilities to service in conquered territories, and some may be engaged in "scorched earth" demolition as the Army retreats.

As for normal maintenance, this function -- aside from the enforcement of safety regulations and the threat of expropriation for gross negligence -- is left entirely to the operating companies.

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ANNEX I: BRIEFS OF THREE IMPORTANT LAWS.

1. Energy Economy Act (Gesetz zur Förderung der Energiewirtschaft; Energiewirtschaftsgesetz) of 13 December 1935.

Paragraph 1: The German electric power supply industry is under the control of the Reich. This control is exercised by the Minister of the Economy [supplanted in this capacity by the General Inspector for Water and Power], in conjunction with the Minister of the Interior in matters concerning supply of cities and towns.

Paragraph 2: Power plants in the meaning of this law are plants which engage in production, transmission, or distribution of electricity or gas. Plants concerned only with communications are not included. Regardless of their legal forms or their ownership, all enterprises that supply other plants with electricity or gas, or that administer such activities, are power plants. Plants supplying others with power as a subsidiary activity, or for limited periods only, are considered to be power plants to the extent that they supply others. In case of uncertainty as to the status of a plant, the Minister will decide.

Paragraph 3: Necessary information must be reported to Minister by plants.

Paragraph 4: (1) The Minister must be notified before any plant may be constructed, renovated, enlarged, or closed down. (2) The Minister may interpose objections within one month, or if he deems it necessary in the public

interest, he may prohibit the action, with two months notice given the enterprise involved, following the appropriate "procedure for prohibition." (3) The Minister will specify what reports he desires, in what form, and at what time. He will also specify the "procedure for prohibition." (4) The Minister may call for reports on non-power-supply functions of power supply companies.

Paragraph 5: (1) When plants not previously doing so undertake to supply other plants with power, they must have the approval of the Minister (unless they do so on orders of the Reichsstelle). (2) Before an industrial enterprise may erect or enlarge a plant to provide its own power supply, it must notify the public utility serving the area of its intention.

Paragraph 6: (1) Each utility which serves a reserved territory is obligated to publicize its rates and conditions of service. It must accept all consumers who desire service, under these conditions and at these rates. This principle of no-discrimination is called "allgemeine Anschluss und Versorgungspflicht." (2) The no-discrimination principle does not extend to cases where it is economically unfeasible to connect a party to the network or to supply the party, nor to cases where the applicant has failed to give notice under Par. 5(2), above, unless this failure was unavoidable, or occurred more than ten years earlier. (3) Industrial self-supplying plants, even though their service extends to plants located on separate pieces of

property, are not subject to the no-discrimination principle. They can sell to other consumers, using their own connecting systems, provided that the public supply company does not object. (4) The Minister may issue orders differing from the provisions of (1), (2), and (3), above, in the public interest; such orders will be binding on both the administration and the judiciary. (5) If a power supply company changes from private to public ownership and control, under the provisions of par. 17 of the German municipal statute (Deutsche Gemeindeordnung), and a difficulty arises as to the application of the no-discrimination principle, the procedure set forth in pars. 29 and 30 of the Gemeindeordnung shall be followed; the administrative court (Verwaltungsgericht) shall -- on proposal of either party to the dispute -- have jurisdiction over questions of conditions of sale which the company must offer under par. 3(2), above.

Paragraph 7: If the Minister considers it economically desirable, he may issue laws and directives to establish uniform rates and conditions of supply, and to control prices paid by the supply companies for power purchased from outside producers.

Paragraph 8: (1) If a supply company shows that it cannot perform its assigned functions -- especially those required of it by this law -- and cannot attain sufficient sales by the removal of whatever hindrances interfere

with the performance of its functions, the Minister may (following the "procedure for prohibition,") prohibit all or a part of the activities of the company. He may order another power supply company to take over the supply functions of the interdicted company. In case the interdicted company is controlled by one or more government bodies, it must be supplanted by another government-controlled company unless this would be uneconomical. A company shall not be required to take over another company's functions if it would be impracticable to do so. (2) The company taking over assumes the rights and duties of the interdicted company. (3) The Minister may instruct the company taking over to begin operating the facilities before the transfer has been consummated, if this is necessary in order to maintain service. The newly installed company may make any needed alterations in the plant.

Paragraph 9: (1) The Minister may, on the proposal of the new company, order the expropriation of the property of the old company. A formal notification will be made if the old company requests it. (2) The provisions of par. 11, below, will be applied in the expropriation proceedings, provided:

1. that an appropriate indemnity be paid,
2. that the indemnification will be made in the form of ownership participation in the company in whose favor the expropriation is made, if this company is wholly or more than half publicly-owned, and if the owning public body so proposes, and
3. that the Minister may handle the expropriation procedure if the company being expropriated complains that the company in whose favor the expropriation is made is not carrying it through.

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(3) The expropriation and indemnification procedures of the various states shall be applied, until such time as a Reich expropriation law is enacted. (4) No public taxes or court fees shall be imposed for the expropriation transactions.

Paragraph 10: Importation of electricity or gas from abroad by means of permanent lines or mains, or the conclusion of agreements in this connection, must have the consent of the Minister.

Paragraph 11: (1) Wherever eminent domain must be invoked for purposes of power supply, the Minister shall initiate the proceedings. (2) The Reichsenteignungsgesetz (whenever it is passed; meanwhile state laws govern) shall be followed, and the Minister shall take care of all non-administrative decisions, such as the extent of the claim.

Paragraph 12: The Minister has authority to issue orders on the applicability of charges for rights of way, and the amounts of such charges.

Paragraph 13: (1) The Minister may issue regulations and orders concerning proper maintenance of existing power plants and the construction of new ones, as well as concerning the disposal of power, to the extent necessitated in the interests of national defence, and within the bounds of reasonableness, feasibility, and convenience of the companies concerned. Companies undertaking construction needed for the public welfare shall be paid for so doing, the amount to be stipulated by the Minister. (2) The

Minister issues regulations and orders concerning the technical conditions, operating safety, and the installation of power-producing and power-consuming apparatus; he also inspects the plants.

Paragraph 14: Technical and economic information available to personnel handling the execution of this law is confidential; employees must take an oath of secrecy.

Paragraph 15: Penalties.

Paragraph 16: (1) In preparing explanations and regulations based on this law, the Minister may consult the chief of the Reich Power Group (Reichsgruppe Energie). He may delegate his authority under Paragraph 3 and Par. 4 (1) to the chief. (2) The Minister may delegate certain other authorities.

Paragraph 17: The Law of 31 December 1919 on the Socialization of the Electricity Industry (and certain other measures) is hereby repealed.

Paragraph 18:

Paragraph 19: (1) (2) The Minister may alter or set aside State (Land) law or provisions thereof, in re power supply.

Paragraph 20: Effective 13 December 1935.

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Signed by Hitler

2. Decree for Protection of Electricity Supply (Verordnung zur Sicherstellung der Elektrizitätsversorgung) of 3 September, 1939.

By the authority of the Plenipotentiary for Reich Administration (Generalbevollmächtigte für die Reichsverwaltung) and the High Command of the Armed Forces (Oberkommando der Wehrmacht), it is ordered:

Section 1

Reich Office for the Electricity Industry (Reichsstelle für die Elektrizitätswirtschaft)

Paragraph 1: For the security of the Electric supply, the Reichsstelle is established, with headquarters in Berlin.

Paragraph 2: The Minister of the Economy shall appoint the chief (Leiter) of the Reichsstelle, may remove him, and shall direct his work.

Paragraph 3: Powers of the Reichsstelle:

- a) To regulate the delivery of available electricity to users according to priorities, and to issue implementing orders to generating plants.
 - b) To permanently or temporarily cut off power from users, or to reduce amounts they receive, and to issue implementing orders to the users.
 - c) To take all necessary precautions to assure that power will be reserved for use of the most important consumers.
- In this, no other authority or office may interfere.

Paragraph 4: The Minister of the Economy may assign other duties and powers to the Reichsstelle; however, he must

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do so jointly with the Minister of the Interior in Matters concerning the power supply of towns and groups of towns.

Section 2

Duties of the Regional Offices of the Ministry of the Economy (Bezirkswirtschaftsämter) and of the Chambers of Industry and Commerce (Industrie- und Handels-Kammer) /latter now supplanted by Gau Economic Chambers/.

Paragraph 5: The Regional Offices of the Ministry of the Economy shall exercise the powers of the Reichsstelle in their regions. They shall designate officials to function under the direct supervision of the Reichsstelle. The Minister of the Economy may designate certain Regional Offices to exercise these powers over territories larger than their customary regions. Those whose customary territories are thus absorbed are required to provide administrative help to those whose territory is expanded. /According to some reports this has been done, creating thirteen regions for electricity allocation within the structure of the fifteen Regional Offices of the Ministry of the Economy.7

Paragraph 6: The Chambers of Industry and Commerce /now replaced by the Gau Economic Chambers7 also exercise the Reichsstelle's powers in their areas, under direct orders from the Regional Offices of the Ministry of the Economy. In emergencies the Reichsstelle may issue orders to them directly. The Minister of the Economy may designate certain Chambers to operate in this regard over areas broader than their customary boundaries. The Chambers whose

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areas are thus absorbed must perform any needed administrative help.

Section 3

Relation to the Energy Economy Act of Dec 13, 1935

Paragraph 7: Except to the extent that it conflicts with the present law, the regulations of the Energy Economy Act remain in force.

Paragraph 8: The report required by paragraph 4 of the Energy Economy Act when a plant is shut down, will not be required if the closing is done under orders of the Reichsstelle.

Paragraph 9: The authorization required by paragraph 5 of the Energy Economy Act when an industrial plant disposes of power to an outside concern is not required during such time as the transaction is carried out under orders of the Reichsstelle.

Paragraph 10: The no-discrimination principle does not apply to prevent a company from cutting off a consumer's power, if this has been ordered by the Reichsstelle. Paragraph 6(5) of the Energy Economy Act is suspended for the period in which this order is in effect.

Section 4

Other Topics

Paragraph 11: The Reichsstelle and its subordinate agents may require that firms report on their technical and economic situations, to the extent that such information is needed in carrying out this order.

Paragraph 12: Employees of the Reichsstelle and its subordinate agents must maintain secrecy with respect to all information about companies learned in connection with their work.

Paragraph 13: Penalties.

Paragraph 14: Penalties.

Paragraph 15: The Minister of the Economy may pay indemnities for any injuries suffered in consequence of this act.

Paragraph 16: The Minister of the Economy will issue whatever further regulations may be necessary to carry out this order.

Paragraph 17: Effective 3 September 1939.

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3. German Municipal Statute (Deutsche Gemeindeordnung) of
30 January 1935.

Part Six: Municipal Economic Activity

Paragraph 60: Detailed regulations concerning management of all economic activities entered into by municipalities.

Paragraph 67: Towns may undertake or enlarge economic activities only if they can afford it and if the activities could not be better handled in some other way.

Paragraph 68: Six weeks notice must be given the Ministry of the Interior before a town undertakes or enlarges any economic activity. The notice must show that all legal requirements are fulfilled and that the financing of the activity is sound.

Paragraph 69: Similar stipulations with respect to acquisition of an interest in an established economic activity.

Paragraph 70: The Mayor represents the town on the board of directors or the analogous organ of company in which the town has a financial interest; his word is authoritative for the town. If officials or appointees of the town are held responsible for actions performed in their official capacity which cause damage attributable to intent or to gross negligence on their part, they and not the town are punished. But if the actions have been taken in obedience to orders, the town must accept the responsibility.

Paragraph 71: Town delegates on boards of directors of companies in which the town (or group of towns) has over 75 percent interest, cannot approve lending or

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borrowing without the approval of the Ministry of the Interior. This is also the rule if a company owned 75 percent by municipalities wishes to acquire a share in another company.

Paragraph 72: Economic activities shall yield a profit for the town budget. Their income must cover at least all operating expenses and interest on capital. Operating expenses include taxes, interest, rents, and all payments due the town for facilities and services provided. All such services and facilities must be paid for.

Paragraph 73: Town enterprises which have a monopoly on their market may not exploit that monopoly by requiring customers to make extra purchases in order to get essentials.

Paragraph 74: Enterprises which do not incorporate under the Reich must adopt formal by-laws. Each enterprise must have advisors, chosen from among the businessmen of the town. Management, property administration, and accounting shall be handled so that they can easily be examined.

Paragraph 75: The incorporation of an unincorporated municipal enterprise must be cleared with the Ministry of the Interior.

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Annex II.

BIBLIOGRAPHY

Ministry of Economic Warfare, Enemy Branch, Germany, Electricity Supply, Part I: Generation and Transmission, August 1943. This report describes the generation of electricity and main transmission lines. All larger stations are listed, giving their important technical characteristics. Statistical data are presented for 1937 and estimates are made for 1943. Maps of the transmission systems accompany the report.

Ministry of Economic Warfare, Electricity Supply in Germany, Third Report by Sir Leonard Pearce, November 1940. This is an early report which lists alphabetically the larger German power stations giving their pre-war capacities.

Die Elektrizitätswirtschaft im Deutschen Reich, Hoppenstedt & Co., Berlin, 1938, (Edited by Wirtschaftsgruppe Elektrizitätsversorgung). This publication -- of which only the issue of 1935 was available -- is a very useful reference book for all

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important public supply companies and gives information about the plants owned by each. It also gives short summaries of electric power facilities by major geographic regions. The issue of 1937 is said to list all plants with sales of 500,000 kwh. and more per year. A supplement for 1939-40 is reported to have been published.

Deutscher Wasserwirtschafts - und Wasserkraftverband e.V., Water Power Exploitation in Germany,
Berlin, 1930. A complete description and list of all hydro-electric power plants in Germany as of 1930 with many illustrations.

Verzeichnis der deutschen Elektrizitätswerke,
Dortmund, 1934. (Edited by Vereinigung der Elektrizitätswerke E.V.) An official list in tabular form of all public power plants, giving the main technical data for each plant. Latest issue available covers 1934.

Miller, Oskar von, Gutachten über die Reichs-
elektrizitätsversorgung, VDI-Verlag GmbH., Berlin,
1930. An interesting blueprint for the German electric
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power supply industry which has exercised a profound influence upon the electric power development in Germany since 1933. It is said that many of the book's recommendations have been realized since the outbreak of the war.

The leading technical periodicals in the fields are:

- 1) Elektrotechnische Zeitschrift (E.T.Z.): Covers the field of electricity with emphasis on electrotechnical equipment and development of new power facilities in Germany and abroad.
- 2) Elektrizitätswirtschaft: Deals mainly with the electric power supply industry.
- 3) Elektrotechnik und Maschinenbau: Originally published in Vienna, corresponds to the Elektrotechnische Zeitschrift in Germany.

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Two Civil Affairs Handbooks of importance to electric power are:

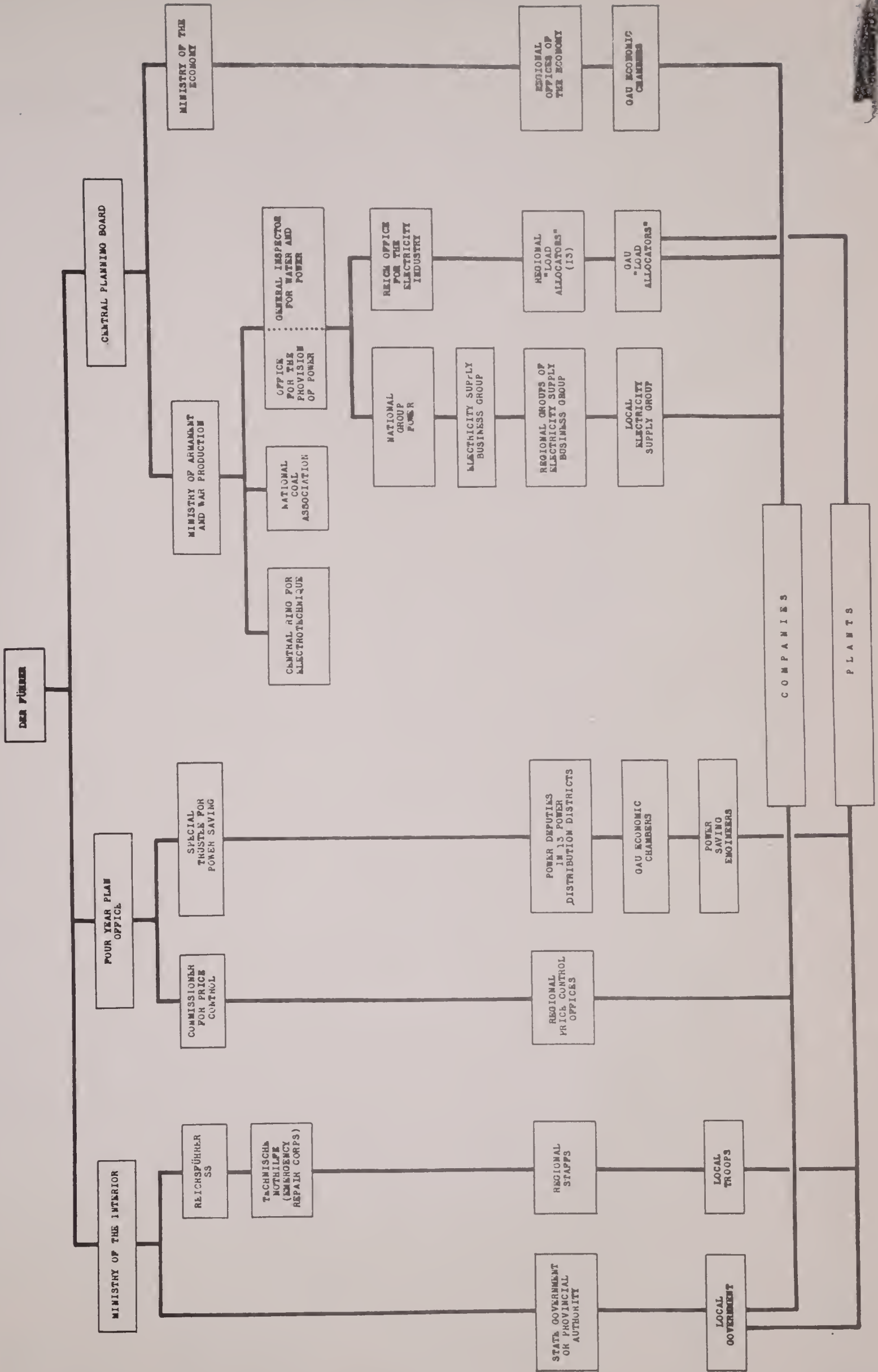
1) ASF manual M356-10A, Electric Power, 24 February 1944.

2) ASF manual M356-2T, Economic Controls in Nazi Germany, 1 February 1944.

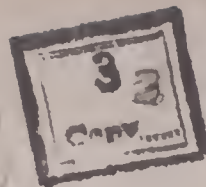
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GOVERNMENT CONTROL OVER ELECTRIC POWER INDUSTRY IN GERMANY (SPRING-1944)



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WAR DEPARTMENT PAMPHLET NO. 31-151

CIVIL AFFAIRS INFORMATION GUIDE

COAL PRODUCTION AND DISTRIBUTION IN GERMANY



Classification Cancelled
by authority of
SEC WAR file WD AGAD 7G109
5&6 June 1947

WAR DEPARTMENT • 5 OCTOBER 1944

WAR DEPARTMENT,

WASHINGTON 25, D. C., 5 October 1944.

War Department Pamphlet No. 31-151 Civil Affairs ~~Information~~ Guide, Coal Production and Distribution in Germany has been prepared by the Foreign Economic Administration and is published for the information and guidance of all concerned.

[A. G. 461 (5 Oct. 44).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

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This Guide was prepared under the supervision of the Committee on Civil Affairs Guides and is approved by the Committee.

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I. POSITION OF GERMAN COAL IN THE EUROPEAN ECONOMY

Germany is the greatest coal-producer of continental Europe. Most European countries have a coal deficit. Before the war Germany stood second only to England as a source for their supply.

Average coal production, consumption, and deficit in countries around Germany, 1928-37

[000 metric tons]

Country	Average production			Average apparent consumption in terms of Steinkohle	Average surplus or deficit in terms of Steinkohle
	Steinkohle ¹	Lignite and brown coal	Total in terms of Steinkohle ²		
Austria		3, 090	2, 040	6, 430	-4, 390
Belgium	26, 610		26, 610	31, 150	-4, 540
Czechoslovakia	13, 200	17, 600	24, 800	23, 160	+1, 640
Denmark				5, 700	-5, 700
Finland				1, 300	-1, 300
France ³	48, 570	1, 000	48, 800	79, 700	-30, 900
Hungary	820	6, 600	4, 100	3, 070	+1, 030
Italy	390	600	520	12, 950	-12, 427
Netherlands	12, 410		12, 410	12, 220	+190
Norway				2, 970	-2, 970
Poland	34, 230		34, 230	23, 110	+11, 120
Sweden				6, 570	-6, 570
Switzerland				3, 480	-3, 480
Total	136, 230	28, 890	153, 510	211, 810	
Gross deficit					72, 280
Gross surplus					13, 980
Net deficit					58, 300

¹ German term covering semianthracite, bituminous, and subbituminous coal.

² Conversion ratios:

Austria, Czechoslovakia, Hungary: 1 ton of lignite or brown coal = $\frac{2}{3}$ ton of Steinkohle.

Denmark, France, Italy (and Germany): 1 ton of lignite or brown coal = $\frac{3}{5}$ ton of Steinkohle.

³ Production excludes coal from the Saar.

German coal production, consumption, and exports ¹

[000 metric tons, in terms of Steinkohle]

Period	Production	Apparent consumption	Exports
1928-37 (average)	172, 989	143, 787	29, 205
1932	131, 995	111, 136	20, 859
1937	225, 551	182, 326	43, 225
1938	229, 507	194, 217	35, 290
1939 (estimated)	236, 275		
1943 (estimated)	238, 000		

¹ Figures are for the Altreich, which did not include the Saar before 1935. Saar consumption was about 2,000,000 tons, exclusive of coal used at the mines.

Average United Kingdom coal production, consumption, and exports, 1928-37

[000 metric tons, in terms of *Steinkohle* ¹

Period	Production	Apparent consumption	Exports
1928-37-----	232, 390	170, 216	62, 174

¹ All United Kingdom production is in the *Steinkohle* class.

German production increased as the Nazis prepared for war and the increase has been more than maintained during the war. But in most countries under German domination (excepting Poland and Czechoslovakia) production has declined, owing to lack of willing labor, undernourishment of miners, shortage of new machinery, and so on. It may take some time after the liberation of these countries and the cessation of hostilities to restore their production to pre-war levels.

Military action and German demolitions may further impair continental coal production and impede post-war rehabilitation of the liberated mines. In the Soviet Union, many of the mines have been seriously damaged. Even in Sardinia, where there was little enemy demolition, the mines are in poor shape. If the Germans repeat their 1918 wrecking of the northern French mines or if they flood those in the Low Countries, the normal European deficits will be still further multiplied—and this at a time when the work of reconstruction will be making unusual demands for coal.

If the war in the Pacific continues beyond that in Europe, it may be a considerable period before the supply and shipping situation of the United Nations would permit any large-scale imports from England or the United States. Thus, the production of Germany is likely to be of unusual value to the United Nations and especially to the liberated areas in Europe. It could help provide fuel and materials for the manufacture of supplies needed not only for reconstructing wrecked railroads, bridges, roads, ports, houses, and so on, but also for making consumer goods to replace what has been worn out, or destroyed through military action or Nazi destruction. Still more important, it could help overcome mass unemployment that would exist if liberated plants are idle for lack of fuel and if businesses dependent on them are closed.

Consumption of Coal in Germany.

Total consumption of coal in Germany increased about 60 percent ¹ between 1934 and 1943.

¹ Table 4 in the appendix contains a breakdown of 1934 and 1943 coal consumption by major uses. The latter figures are an estimate based on scattered information.

Total coal consumption in the Altreich, 1934, 1943

Metric tons
(in terms of *Steinkohle*)¹

1934 (excluding the Saar)-----	119,375,000
1943 (estimated)-----	197,000,000

¹ Excluding coal consumed at the mines and allotted to employees. Before the war this item averaged some 10 percent of the total output.

But while total consumption has greatly increased, certain users have been sharply cut. Probably the chief cut has been among householders, small enterprises, and other nonindustrial consumers, who in 1934 accounted for nearly 31 percent of the total. By the end of 1943 consumption by these groups is estimated to have been scaled down about 40 percent from the 1934 level. As there was a population increase since that time, the per capita decrease has been even greater.

Rationing of fuel was begun in the fall of 1939. At first an attempt was made to use a point system for the smaller consumers; it made some allowance for variations in need, but was soon abandoned. Since 1940 rations for such consumers have been based on a percentage of their 1938-39 consumption. The early cuts were sharp and have been followed by others. There were also indirect economies in fuel consumption; householders were ordered to share their quarters with war workers and with people evacuated from towns containing bombing objectives. At the end of 1943, in some crowded areas no person was permitted to have exclusive use of more than half of one room. The closing of many retail outlets and of small plants and shops eliminated other groups of consumers. All supplies of fuel for the numerous museums were stopped and allotments for public buildings, offices, halls, stations, and similar structures were cut to the bone.

II. GERMAN COAL PRODUCTION AND USE

A. Character of German Coal.

German coal is classified in two broad groups—*Steinkohle* and *Braunkohle*.

In 1936 the proportionate production of the various kinds of coal classed as *Steinkohle* was—

Type	Percentage of total tonnage
Bituminous coking coal (<i>Fettkohle</i>)-----	57.6
Gas coal (<i>Gaskohle</i> and <i>Gasflammkohle</i>)-----	31.5
Semibituminous and semianthracite (<i>Esskohle</i> and <i>Magerkohle</i>)-----	7.3
Anthracite (<i>Anthrazit</i>)-----	3.6

The coal classed as anthracite is less hard than Pennsylvania anthracite, contains more volatile matters, and has a slightly lower ash content. The Ruhr had much the highest output of coking coal.

The German *Braunkohle* is in general an unconsolidated type of lignitic coal. The moisture content is high. In the Lower Rhine district it contains up to 62 percent water before draining by drifts. The brown coal of Central Germany contains from 48 to 55 percent water, that of districts to the east slightly less. The heating value of the average German brown coal is low. Approximately 9 tons are needed to provide the heat obtained from 2 tons of ordinary bituminous.

B. Reserves of German Coal.

The known and probable *Steinkohle* reserves of Germany are estimated to be 288 billion metric tons, about three-quarters of them in the Ruhr.

The most important workable brown coal deposits are estimated to hold 52 billion metric tons; one-third of this total is along the lower Rhine and nearly half of it is in Central Germany—in Lausitz and Thuringia-Saxony. These Central German fields probably account for a very considerable part of the brown coal being used for the manufacture of synthetic gasoline.

C. Geographical Distribution of the Mines.

1. Steinkohle.—Nearly 81 percent of the pre-war output of *Steinkohle* came from fields near the Rhine—almost 70 percent of the total production from the Ruhr district alone. The remainder from the western edge of the country came from the relatively small field of the Saar, which extends into France, and the yet smaller Aachen field, which runs west into Belgium. Most of the other *Steinkohle* came from the extreme east-central rim of the country, especially Upper Silesia.²

Field	Percentage of production (1937)
Northwest:	
Ruhr	69. 2
Aachen	4. 3
Southwest: Saar	7. 2
East:	
Upper Silesia	13. 3
Lower Silesia	2. 9
Scattered: Saxony, Lower Saxony, etc	3. 1
Total	100. 0

² See table 1 in the appendix for the tonnage of *Steinkohle* and brown coal produced in each mining district in 1937 and 1938.

These percentages probably changed somewhat during the war, with the principal increases in the percentage of output from Upper Silesia and a slight decline in the percentage of the Northwest. The total output has not increased since 1938.

2. Brown Coal.—The only important brown coal field in the west is near Cologne, between the Aachen and Ruhr fields. The rest are nearly all near the upper Elbe—i. e., south and east of Berlin.

Field	Percentage of production (1937)
Rhineland.....	29. 7
West of Elbe in Central Germany.....	43. 7
East of Elbe.....	25. 1
Other.....	1. 5
Total.....	100. 0

D. Utilization of Coal in Germany.

Bituminous coal and brown coal are much the most important sources of energy in Germany. The percentage of energy derived from each source in 1937 was estimated as follows:

Source	Percentage
<i>Steinkohle</i>	67
Brown coal.....	26
Water (power).....	3
Wood.....	3
Petroleum and alcohol.....	1
Total.....	100

Coal, being the most valuable industrial raw material in Germany, has enabled the importation of nearly all the others that the country lacks. Coke from the Ruhr was exchanged with France for iron ore from Lorraine. Coal tar, one of the byproducts of the extensive coking operations, provided a foundation for the German chemical industry, whose exports helped to bring in the metal alloys needed for steel making; exports of machinery made from steel, in turn, enabled importation of cotton, wool, wood pulp, foodstuffs; and so on.

For almost a century Germany has been studying ways of utilizing coal to make substitutes for other industrial raw materials that it needed. The loss of the Saar and a good part of the Silesian fields after the last war not only forced the exploitation of untapped coal reserves but also intensified experimental research. The results have been noteworthy.

1. Briquetting.—The high water content of brown coal makes it much more expensive to transport than bituminous. When brown

coal is broken up and the moisture content is reduced to 10–12 percent, it can be pressed while warm into bricks that are shipped easily and keep fairly well. The German brown coal briquettes have an average heat value of 8,000 to 9,000 B. t. u.'s to the pound. No binder is necessary.

Approximately 20 tons of brown coal are pressed into 10 tons of briquettes, but the total amount of brown coal required for each 10 tons of briquettes is 27.8 tons, nearly 8 tons being used in the processing.

Brown coal and brown coal briquette production

[Million metric tons]

Year	Total brown coal mined	Briquettes made of brown coal
1913.....	87	No figures
1929.....	174	42
1936.....	161	36
1937.....	185	42
1938.....	195	44

In 1938 about 41 percent of the brown coal briquettes were made in Central Germany west of the Elbe.

Some *Steinkohle* in sizes not otherwise marketable is also pressed into briquettes. The total output in 1938 was slightly less than 7 million metric tons.³

Before the war about two-thirds of the briquettes were consumed in homes and on farms, and most of the rest in industrial plants.

2. Increase in Electric Power Generated With Brown Coal.—The generation of electric power in Germany has sharply increased in recent years. Much of the increase has been achieved through the use of brown coal in power plants that are at the mines. Brown coal produced 47 percent of the power in 1937 and, according to estimates, 51 percent at the beginning of 1944. Several of the largest plants are in the Leipzig area.

3. Liquid Fuel From Coal.—The lack of petroleum in Germany started a search for other sources of motor fuel. Even before the last war experiments in extracting oil from coal were being carried on with the use of the Bergius hydrogenation process. In the early attempts to use brown coal for this purpose it was found necessary to press it first into briquettes, which greatly increased the cost. Commercial production began around 1930, but the total output was not large until the government forced expansion of the manufacturing facilities a few years before the war.

Some of the new plants were equipped to extract approximately 5 percent of the liquid fuel from the raw brown coal through distillation

³ See table 2 in the appendix for the briquette output of each coal mining district.

and to obtain the rest through use of the Fischer-Tropsch process on the remaining semicoke (*Grudekoks*). By this method 1 ton of liquid fuel is obtained with use of only 15 to 20 tons of raw brown coal.

In 1937 plans had been completed for plants to manufacture annually 1.18 million tons of liquid fuel by the hydrogenation of coal or crude tar oils and by the distillation process. This program was later revised upward. It is estimated that at the end of 1943 Axis Europe was producing at least 5,710,000 metric tons of synthetic liquid fuel a year, probably about 5.5 million in the Altreich (pre-1938 Germany). Of this total, more than 1.5 million metric tons of liquid fuel and light oil came from coal-tar recovered at the coke plants, above all those of the Ruhr. Aviation fuel and lubricating oil were being produced in large quantities at the Leuna works of I. G. Farbenindustrie, near Leipzig, probably from brown coal. At least 75 percent of the output was obtained through the Fischer-Tropsch process.

4. Dyes, Drugs, Alcohol, and Other Products.—Until the last war Germany had practically a world monopoly in the manufacture of synthetic dyes made from coal-tar. Long before that period the chemical industry had also begun manufacture of such drugs as aspirin from the same material. Phenol, naphthalene, and cresol were also obtained from coal tar. Numerous other chemicals are now derived from the tar.

Formerly the gas given off in the coking process was used largely at the mines, but in recent years much has been collected and sent through pipe lines to other areas. Of the total gas consumption in 1937—20.2 billion cubic meters—17 billion came from the coking plants.⁴ The remainder was made in gas works, which also had coke and coal tar as byproducts. More than 90 percent of the gas was used for industrial purposes.

III. OWNERSHIP OF COAL DEPOSITS AND ORGANIZATION OF MINING ENTERPRISES

A. Ownership and Leasing of the Coal Deposits.

With unimportant exceptions, ownership of land in Germany does not give any right or prior claim to underlying minerals. Any person who can show evidence that minerals exist in a specific place, may, if he obtains permission from the state, enter the lands, seek the minerals, and exploit them. Having obtained a mining right, he may not leave the minerals unexploited if, in the opinion of the National Mines Bureau, such exploitation is in the interest of the state. The state also has the right closely to supervise and regulate the mining operations. This concept of mining as a public utility has existed in Germany for centuries.

⁴ See table 3 in the appendix for the production of coke by mining districts.

The owner of the mining right pays an annual royalty to the state in accordance with the number of square meters in his concession.

Mining is carried on by individuals, by partnerships called *Gewerkschaften*,⁵ by stock companies, and by the Reich. Formerly cities and states also operated mines but all or nearly all such enterprises have been taken over by the Reich. Although a few of the public enterprises are operated through government agencies, most are administered through stock companies with the state as sole owner of the stock.

The majority of the enterprises are very large. In 1937, 55 percent of the *Steinkohle* and 82 percent of the brown coal came from mines having an individual output of more than 1,000,000 tons a year. The total number of coal mines in Germany was only about 260, and they were operated by a very few companies. One company alone, *Gelsenkirchener*, accounted for 14 percent of the total output in 1937.

Percentage of total production by large companies, 1937

Number of companies	Percentage of <i>Allreich</i> output
5	50
13	70
21	90

The majority of the mining companies are subsidiaries of the iron and steel combines, though a large part of their output is sold to the general market.

Types of coal mining enterprises and percentage of output from each in 1937

Type of enterprise	Percentage of total <i>Allreich</i> output
Engaged solely in mining.....	31
Subsidiary to heavy industry.....	54
Subsidiary to chemical industry.....	10
Subsidiary to power and miscellaneous industries.....	4

Among the largest enterprises engaged solely in mining in 1937 were some that have long been publicly owned. Part of the state mining companies were later placed under control of the Reich holding company *Reichswerke "Hermann Göring."* By 1943, these and other transfers had brought the percentage of total output of coal and

⁵ Although the number of *Gewerkschaften* has declined in recent years, a few large collieries are still in this class. Rights of the partners are not transferable except by agreement of all partners. Corporations as well as individuals may be partners. The rights of the partners are represented by imaginary shares (*Kuxe*), each of which usually represents 1/100th of the net assets, but may represent 1/1,000th or 1/10,000th.

brown coal mined by combines to 90 percent, with 70 percent in the hands of heavy industry.

*Some leading combines in control of German coal, 1940*¹

Interests	Important coal holdings
Graf von Ballestrem group ² -----	Gewerkschaft "Castellengo Abwehr." Rudaer Steinkohlengewerkschaft.
Friedrick Flick KG ³ -----	Essener Steinkohlenbergwerke AG. Anhaltische Kohlenwerke.
Gutehoffnungshütte Aktienverein für Bergbau und Hütten Betrieb (Haniel combine).	Gutehoffnungshütte Oberhausen AG.
Henkel-von Donnersmark-Beuthen GmbH.	Mines of same name.
I. G. Farbenindustrie-Rheinische Stahlwerke AG.	Mines under name of Rheinische Stahlwerke AG. in <i>Steinkohle</i> and brown coal fields. Mines under name of I. G. Farben- industrie.
Ilse der Hütte AG-----	See next section.
Klöckner-Werke AG-----	Mines of same name.
Friedrick Krupp (family firm)-----	Friedrick Krupp. Constantin der Grosse. Emscher-Lippe. Bergbau Lothringen. ⁴
Mannesmannröhren-Werke AG-----	Mines of same name.
Reichswerke "Hermann Göring"-----	See next section.
Gräfl. Schaffgott'sche Werke AG-----	Mines of same name.
Schering AG. and Borsig AG-----	Borsig Kokswerke AG.
Schering AG-----	Niederschlesische Bergbau AG.
Saltzdetfurth AG-----	Braunkohlenwerke Saltzdetfurth. Mansfeld AG.
Gebrüder Stumm GmbH-Otto Wolff KG.	Essener Bergwerkes Verein-König Wil- helm.
Vereinigte Stahlwerke AG-----	*See next section.
Verkaufsgesellschaft der Michel-Werke (Michel combine).	Niederrheinische Bergwerke AG. Michel. Vesta. Leonhardt. Gute Hoffnung.
Gewerkeschaft Wintershall (Wintershall combine with Gunther Quandt in control).	Braunkohlen Abbauberein "zum Fort- schritt."

¹ As far as possible, the holding company of the combine is named in the first column. Where the name of the holding company does not indicate the informal name for the combine, this has been added in parentheses. The second column gives the name under which the mines are operated.

² The various iron and steel interests of the von Ballestrem family seem to be held in the name of the mining company, which is a partnership.

³ See next section also on Flick interests.

⁴ Acquired from Wintershall in 1943, apparently as part of the "reprivatization" movement in anticipation of defeat. The Reich is reported to have some interest in both Wintershall and Saltzdetfurth, which were originally potash combines.

B. Reich Coal Mining Interests.

The Reich has much the most important bloc of interests in the German coal-mining industry. It was estimated at the end of 1942 that more than 40 percent of the total *Steinkohle* and a considerable percentage of the brown coal being mined in the *Altreich* came from mines wholly owned by the Reich, by its subdivisions (primarily

Prussia), and by combines and holding companies in which the Reich was the sole or the leading shareholder.

Some outstanding enterprises in this category, together with their output in 1937 (the last year for which their respective production figures are available) were:

1. **Preussische Bergwerks und Hütten AG.:** 5,777,000 metric tons from mines in Upper Silesia and Saxony. The mines were developed by the Kingdom of Prussia before 1900. The company also mined brown coal.

2. **Bergwerksgesellschaft Hibernia AG.:** 10,229,000 metric tons from pits at Herne in the Ruhr. Some stock in this company was acquired by the Kingdom of Prussia before 1912; the remainder was purchased in 1916.

3. **Saargruben AG.:** 13,365,000 metric tons. This Reich-owned company produced most of the coal coming from the Saar. The Reich bought out French lessors when the Sarr was returned to Germany after the plebiscite of 1934.

4. **Gewerkschaft Friedrich der Grosse:** 1,221,000 metric tons from pits at Herne in the Ruhr. This company is a subsidiary of Ilseder Hütte, an iron and steel corporation in which the Reich already had 25 percent of the stock before 1933. It is not clear whether or not the Reich's participation in this subsidiary was increased when the Reich-owned holding company *AG. Reichswerke "Hermann Göring"* obtained certain other properties of Ilseder Hütte. The stock was formerly held by the old state holding company *VIAG*.

5. **Grube Ilse:** 54,000 metric tons from mines in Lower Saxony. This was also an Ilseder Hütte property.

6. **Preussengrube AG.:** 1,403,000 metric tons from pits at Borsig in Upper Silesia. The Reich is reported to have participated in this enterprise before the advent of the Nazis. In 1943 a majority of the stock was held by a subsidiary of "*Hermann Göring*."

7. **Mines of Harpener Bergbau AG.:** 9,149,000 metric tons from pits in several parts of the Ruhr. The mines were acquired outright by Reichswerke "*Hermann Göring*" through exchange with Friedrich Flick.⁶

⁶ It is possible that this exchange also gave some control of the mines of *Essener Steinkohlenbergwerke AG.* (6,107,000), a subsidiary of *Harpener* and of the Flick holding company. "*Hermann Göring*" acquired merely the mines of the *Harpener* company, which, like certain other mining firms, is a holding as well as an operating company. When *Reichswerke "Hermann Göring"* was established its primary job was utilization of certain low-grade German iron ores, as part of a plan for making Germany less dependent on imported ores. Leaders of the older iron and steel combines united in an attempt to keep coking coal from the new rival. Flick, the speculator, broke the united front when he aided "*Hermann Göring*" by turning over some of his mines. His reward came in the form of heavy participation in the loot of conquered areas. According to one report, late in 1943, when the Nazis began to place as much property as possible in the "private" category in anticipation of reparation demands, the *Harpener* mines were turned back to Flick.

8. **Bergbau AG. Ewald-König Ludwig:** 5,008,000 metric tons from mines in the Ruhr. "*Hermann Göring*" held a majority of the stock.

9. **Gelsenkirchener Bergwerke AG.:** 26,644,000 metric tons from a number of mines in the Ruhr. This company is wholly owned by *Vereinigte Stahlwerke*. The Reich was the principal stockholder in this iron and steel combine in 1932 through purchase of *Gelsenkirchener Bergbau* from Flick and certain minority holders; the mining company was the chief holder of *Vereinigte Stahlwerke* stock. Under the Nazis there was a reorganization in 1933 that reduced the Reich participation to 25 percent. In 1936 it was announced that the Reich had disposed of its holdings. But late in 1939 state confiscation of the property of the Nazi Party member Fritz Thyssen, a leading stockholder in *Vereinigte Stahlwerke*, was announced, after he quarreled with one faction of the party and fled the country. So far as is known, the Thyssen holdings in the steel combine remained in the hands of the Reich.

10. **Concordia Bergbau AG.:** 1,568,000 metric tons from pits near Oberhausen in the Ruhr. *Vereinigte Stahlwerke* is a majority stockholder.

The above companies mine *Steinkohle*.⁷ The Reich also has very considerable participation in the brown coal fields. The mines serving the power plants developed through "*Hermann Göring*" account for about 8 percent of the brown coal output. This combine also owns the majority of the stock in *Braunkohlen AG. Vereinsglück Meuselwitz*; no figures are available on the company's output, part of which may come from Poland or Czechoslovakia.

C. Mining by Private Interests.

It is difficult to discover where the Reich's interests end and private interests begin. Each of the large iron-and-steel combines has its mining companies but there has been much interchange of the stock of holding companies and subsidiaries. *Vereinigte Stahlwerke* sits at the center of the spiderweb. But interchanges have not been exclusively within the iron-and-steel combines. While *Vereinigte Stahlwerke* is the majority stockholder of *Concordia*, nearly a quarter of the stock is held by *Schering AG.*, a chemical corporation that has greatly prospered under the Nazis. The crossing of lines between the iron-and-steel and the chemical combines is found again in the brown coal *Rheinische Stahlwerke* mining company, where the major stockholder is *I.G. Farbenindustrie*.

Moreover, major stockholders of *Vereinigte Stahlwerke* and other combines appear over and over again in connection with certain sub-

⁷ The Bavarian state company *Bayerische Berg-Hütten-und Salzwerke* was producing 610,000 metric tons of pitch coal in 1937.

sidiaries of "*Hermann Göring*" that are partly owned by private interests.

There is considerable evidence that high Nazis having been piling up fortunes for themselves through use of dummies and it is quite probable that stocks in mining companies are among their acquisitions.

One of the objectives of "reprivatization" is to conceal such gains. The German system of issuing stock certificates of the nonliability type without the name of the owner and with dividend coupons payable to the bearer, lends itself readily to the concealment of ownership. When combined with use of dummy holders, and especially private holding companies in Switzerland and other neutral countries, it offers almost endless possibilities for Nazis to hide their loot. While ownership of large blocks of stock could under ordinary conditions be discovered by examination of the records of the banks that act as buying, depository, and dividend-paying agencies, it is to be expected that such records as might reveal improperly acquired holdings will have disappeared. Bomb damage and fire can serve German purposes well in this field.

D. Coal Cartels.

The German coal cartels (called syndicates), which had their origin about 1880 and in which membership has been compulsory since 1916, might be said to have evolved the system that the Nazis adopted to place all power in the hands of a few dominant interests.

The elements of the coal cartel system as eventually developed were:

1. Compulsory membership;
2. A method of sales allocation among the member companies that increased the sales of the dominant companies and drove smaller competitors out of business;
3. Voting representation in accordance with the size of the sales in the previous year, which gradually pyramided control into the hands of a very few companies;
4. Monopoly in the domestic field through tariff protection and regulation of imports.⁸
5. Strict penalties for violation of the cartel rules.

The key to the system that gradually gave control of all German coal to a few companies was the cartel practice of allotting sales quotas

⁸ Before the war Germany was divided into noncompetitive sales areas (i. e., areas in which the whole market belonged to specific syndicates) and competitive areas (i. e., areas in which two or more syndicates theoretically competed). But even in the competitive areas the character of the competition was strictly limited by inter-syndicate agreements. As the voting power of each syndicate was determined by the size of its sales quota, one syndicate alone (*Rheinisch-West-phälisches*—see ahead) could out-vote all the others combined. Moreover, the comparatively small sales quotas of most of the other syndicates prevented them from being serious competitors.

in accordance with the sales of the previous year. In theory this would have resulted in a static relationship; in fact it tended to reduce the sales of the smaller producers and to increase the sales of the larger ones.

Sales quotas were made up first by estimating the total probable sales of the coming year. A minimum was assured through use of an annual contract, required of every domestic buyer and even of some foreign buyers. Under these contracts the buyer had to spread his purchases evenly throughout the year, to agree to a price set in advance, and to accept certain other conditions. Wholesalers, in turn, were required to demand similar arrangements from retailers. The minimum total of sales assured to members of the syndicate were then allotted among the companies in proportion to their share of total syndicate sales in the previous year. This formed the basic quota. However, a fixed percentage was then added to the basic quota to cover unexpected sales of the kind that would appear in a year of rising industrial activity. The latter became the actual working quota.

When large unexpected orders appeared they were in theory allotted among the mines until the respective quota limits were reached. Actually, however, it was usually beyond the ability of the smaller producer suddenly and considerably to increase his output. This would throw the orders to the larger mines, thereby increasing their proportion of syndicate sales in the following year and decreasing the proportion of the smaller operators.

Moreover, some cartel members were able themselves to create large "unexpected" orders. The iron, steel, and chemical combines that belonged, directly or indirectly through subsidiaries or affiliates, to the coal cartels could understate their expected coal consumption when the quotas were being fixed and later introduce large orders that would progressively increase the proportion of business allotted to their big coal companies.

And the rules by which the system was established and entrenched could not be changed without the consent of their greatest beneficiaries. Although membership in the coal cartels has been compulsory for all producers ever since 1916, the members do not all have equal voting rights. It is the essence of the system that such rights, like the coal orders themselves, are apportioned in accordance with the sales quotas.

Sales quotas were apportioned among the syndicates by a system similar to that used within the syndicates.

The coal cartels carried on these operations:

1. Restriction of production to maintain prices and prevent competition;

2. Price-setting (theoretically kept under control by the state but after the state coal mining companies joined the cartels prices were kept at a high level by state acquiescence) ;

3. Imposition of annual contracts that dictated sales conditions;

4. Operation of sales agencies to enable allocation of orders in the manner most favorable to the dominant companies and to provide a check on compliance with the cartel rules.

Under war conditions the cartels have almost ceased to function except as sales agencies.

1. Owing to the need for maximum production, they have been forced to abandon all company and inter-cartel quotas. The dominant *Rheinisch-Westfälisches* cartel has even been forced to promise that all increases in production achieved by its competitors and by small members of the syndicate during the war period will be taken into account in setting post-war inter- and intra-cartel quotas.

2. The over-all price control of the state is applied to coal as well as other commodities, though the cartels still help to assemble the cost-accounting reports prepared by each mining company.

3. Under the rationing system annual contracts, if still used, become meaningless; the state determines sales conditions.

4. The rationing system, coupled with strict control of the distance goods may be shipped, eliminates sales solicitation. The cartel offices still receive the orders for coal that have been approved by the government rationing authorities, distribute them among the mines in accordance with the rules of the state transportation authorities, and act as collection agents for the coal companies.

It is possible that the syndicates are also acting for the *Reichsstelle Kohle* in allocating the coal permitted to the large industrial consumers, many of whom are represented directly or indirectly on the boards of directors of the syndicates. While the question of the extent to which coal from their own mines might be used by the combines without syndicate accounting was long a cause of intro-syndicate quarrels, the syndicates at present seem to keep strict account of all coal used by their members.

The chief *Steinkohle* cartel—*Rheinisch-Westfälisches Kohlen-Syndikat*—has its headquarters in the Ruhr, the major *Steinkohle* producing district, but its membership also includes the companies of the Aachen and Saar fields. The Reich mining companies are members of the coal syndicates in every region where they operate.

The *Steinkohle* syndicates, their headquarters, and the percentage of total German *Steinkohle* output which their respective members accounted for in 1937 were:

<i>Steinkohle</i> syndicates	Headquarters	Percentage of total German output in 1937
<i>Rheinisch-Westfälisches Kohlen-Syndikat</i>	Essen	80.7
<i>Oberschlesisches Steinkohlen-Syndikat</i>	Gleiwitz	13.3
<i>Niederschlesisches Steinkohlen-Syndikat</i>	Waldenburg	2.9
<i>Sächsisches Steinkohlen-Syndikat</i>	Zwickau	2.4
<i>Niedersächsisches Steinkohlen-Syndikat</i>	Hannover	.7
Total		100.0

The cartels of the brown-coal companies, their headquarters, and the approximate percentage of the total brown coal output which their respective members produced in 1937 were:

Brown-coal syndicates	Headquarters	Percentage of total German output in 1937
<i>Rheinisches Braunkohlen-Syndikat</i>	Cologne	29.7
<i>Ostelbisches Braunkohlen-Syndikat</i>	Berlin	25.0
<i>Mitteldeutsches Braunkohlen-Syndikat</i>	Leipzig	43.7
<i>Kohlensyndikat für das rechtsrheinische Bayern</i> ¹	Munich	1.6
Total		100.0

¹ This cartel, as its name indicates, is not wholly a brown-coal syndicate, though belonging primarily in that class. Some of the members, whose mines are scattered, produce pitch coal.

Although the total output of brown coal in 1937 was approximately the same as the *Steinkohle* output—some 184 million metric tons, in terms of heat value the brown-coal production was worth only about 41 million tons of *Steinkohle*. Thus the *Rheinisch-Westfälisches* syndicate controlled not only four times as much *Steinkohle* as all the other *Steinkohle* syndicates, but it also controlled, in terms of heat value, an output that was worth about three and a half times as much as that of all the brown-coal syndicates together. Moreover, some of the members are also members of other syndicates, especially of the *Mitteldeutsches Braunkohlen-Syndikat*, thus further increasing the dominance of the Ruhr group.

The *Rheinisch-Westfälisches* cartel, many of whose members are big coke producers, also controls the coke syndicate.⁹

While most of the coal syndicates are organized as limited liability companies (*Gesellschaften mit beschränkter Haftung*), the *Rheinisch-Westfälisches Kohlen-Syndikat* is a stock company (*Aktiengesellschaft*) which itself owns or partly owns several other companies. The most important are—

⁹ See appendix for names of leading directors of the cartels and coal companies.

Company	Headquarters	Business
<i>Westfälisches Transport AG</i> -----	Dortmund----	Carrier of coal and other materials.
<i>Kohlentransportgesellschaft</i> -----	Duisberg-----	Coal carrier.
<i>Ruhr-Elektrizitäts AG</i> -----	Essen-----	Utility holding company.

In *Westfälisches Transport AG.*, the cartel shares stock control with *Vereinigte Stahlwerke*, whose subsidiary, *Gelsenkirchener*, is also the principal member of the cartel. The Reich, however, through its own mines and through its holdings in *Vereinigte Stahlwerke*, is actually the majority stockholder in *Westfälische Transport AG.* and all other subsidiaries of the cartel.

Ruhr Elektrizitäts AG., another of the important subsidiaries of the syndicate, is itself a holding company, founded in 1937 to gain control of the private power system of Germany in order to prevent it from falling into the hands of companies that mined and utilized brown coal for the generation of electricity.

In addition to their joint undertakings as members of the *Rheinisch-Westfälisches Kohlen-Syndikat*, a number of the iron, steel, and coal companies belonging to the coal syndicate participate jointly in certain important enterprises producing coal by-products—*Ruhrgas AG.*, *Ruhrbenzin AG.*, and *Ruhrchemie AG.* The Reich is—or was—also a stockholder. A number of men who were directors of the syndicate in 1940 were likewise directors of these companies.

Distribution of coal.—Except in Silesia, where combines dominating the coal industry marketed coal through four agencies of their own, coal was sold through the syndicates, which maintained sales staffs and accounting offices. All wholesalers and retailers were united in a *Zentralverband der Kohlenhändler Deutschlands*. They were controlled by the syndicates through a system of annual contracts. Each wholesaler had to agree to handle only such coal as he obtained from the syndicate with which he had a contract; to maintain syndicate prices in his dealings with customers, and to force the same conditions on the retailers; and to take the coal for which he contracted in shipments spaced evenly throughout the year. The dealer had to maintain the necessary storage space for coal received during the seasons of lower demand. In general, distribution expenses were shifted onto the dealers.

E. Position of the Coal Industry under the Nazis.

The government's position in relation to coal and the coal industry is peculiar. State coal mining was begun long before 1900 to provide a cheap supply of coal for state-owned railroads and later for public

power plants. By the early part of the twentieth century the syndicates had made coal prices so high that there was general demand for the government to expand its operations and enter the commercial field as a competitor of the syndicate members. The threat to private producers forced prices down somewhat. Eventually the government decided to enter the syndicates to avoid having to set up its own sales organization. The public did not greatly object to this because it was believed that the government as a member of the syndicates could keep the prices under control. But by the time the government's output for the commercial market had reached sizable proportions, the leading members of the *Rheinisch-Westfälisches* syndicate were able to convince the public authorities that high prices were to the advantage of the public treasury, since there would be a net profit even though public buildings and certain other governmental consumers not served directly by government mines did have to pay high prices for coal.

This community of interest between the government and the leading members of the dominant syndicate increased with the concentration of coal company ownership in the iron-and-steel industry, whose role as armament-maker and steel exporter made it the darling of the Imperial and National Socialist governments.

Some attempt was made under the Weimar Republic to curb this alliance by establishment of a national coal council (*Reichskohlenrat*) and a super-syndicate (*Reichskohlenverband*) with labor and governmental representation. But the iron-and-steel representatives were easily able to control the new organizations; they had allies in the ex-army officers who were in strategic governmental positions, secretly conniving with them in the interest of rearmament. Under the Nazis labor lost its representation in the two organizations that Weimar had created. Eventually both were abolished.

In April 1941 the *Reichsvereinigung Kohle* (National Coal Union) was established as a compulsory nation-wide organization of the coal mining companies and the coal dealers. It was intimated that the day of the regional syndicates was over, and that the *Reichsvereinigung* would assume their functions. But it was apparently inexpedient to abolish the syndicates during the war.

The order setting up the Coal Union laid various responsibilities on the members but offered no powers. Like all other business organizations, the Union was called on to increase production and promote efficiency. It also had responsibility for "improving the social condition of the workers," for cooperating with big coal consumers and governmental agencies, for collecting and evaluating statistics, for advising the government on international coal agreements, and for carrying out such agreements. While the order also stated that the members were responsible for organizing coal transportation and distribution, the increasing governmental control of all transportation,

allocation, and distribution left the members with little to do but follow the regulations in parcelling out orders among the mines. The members of the praesidium of the Coal Union, whose members were elected for 5 years, were permitted to act through deputies. The first president of the praesidium, whose appointment was subject to the approval of the *Reichsmarschall*, was Paul Pleiger, a leading official of *Reichswerke "Hermann Göring."*

But while *Reichsvereinigung Kohle* now exercises few powers this does not mean that the men who from their base in the Ruhr have long controlled the German coal industry, as well as most of the economic life of the country, are ruled by Pleiger for the benefit of the Nazis. They themselves are part of the Nazi politico-economic hierarchy, sharing power, but not publicity, with the politicians.

The industrial monopolists have long and ardently worked for Pan-Germanism and have willingly joined in partnership with Hitler and his lieutenants to achieve their ends.¹⁰ For all practical purposes, the social and political philosophies of the partners are indistinguishable, even though their personal interests sometimes lead to factionalism. As Allied pressure increases, for example, Hitler and the politicians will undoubtedly want to fight to the end, since military defeat will entail the loss of all their power, whereas big industrialists like Flick, Tengelmann, and Zangen may wish to negotiate a surrender in the belief that they can still retain their power.

The importance of the *Reichs-vereinigung Kohle* lies in the fact that when Nazi arms are defeated the unpublicized industrial faction may seek to use it as a ready-made instrument for resuming monopolistic controls and as a vehicle in which they can ride out the storm and continue toward their goal.

F. Miscellaneous Organizations of the Coal Industry.

The *Pflichtgemeinschaft der Braunkohlenindustrie* (Compulsory Association of the Brown Coal Industry), under direction of Reichscommissar Regel of the *Reichsbank*, is an investment agency. Members of the broad coal industry were ordered to unite in this association and act through it in pooling funds for the construction of plants to manufacture liquid fuel from brown coal.

Three old private organizations have been permitted to remain in existence. Nominally they are concerned with technical problems of

¹⁰ After the firm of Friedrich Krupp AG. was given a specially favored status by decree of the Führer in December 1943, Gustav Krupp von Bohlen and Halbach announced his retirement in favor of his son Alfred and publicly stated that Alfred would henceforth give personal leadership to the enterprise, in accordance with "the attitude of the National-Socialist state and our own ideas." Alfred in turn announced, "The task of carrying out to the best of my abilities the social duties of a National-Socialist enterprise will always be dear to my heart * * *. As in the past 132 years, the Krupp works community will always do what Führer, people, and Reich expect of it, especially now that our fatherland is struggling hard for its destiny, defying all powers. Heil Hitler!" *Rheinisch-Westfälische Zeitung*, January 11, 1944.

the coal industry; actually they are honorary societies. Founded for political pressure purposes, in the last years of the Republic they levied a tax on every ton of German coal sent to market to build up the fund used, under the guidance of the dominant Ruhr group, secretly to finance the Nazi drive to seize political power. These organizations are:

Organization	Headquarters
<i>Verein für die bergbaulichen Interessen</i> -----	Essen.
<i>Oberschlesischer Berg-und Huttenmännischer Verein E. v</i> -----	Gleiwitz.
<i>Deutscher Braunkohlen-industrie Verein E. v</i> -----	Halle.

Owing to the small number of coal companies, and their membership in long-established and highly organized syndicates, the *Gruppen* of the industry were of little importance. Leaders of the *Gruppen* were the same men who ran the syndicates. For example, in 1937 the leader of the *Wirtschaftshauptgruppe* that included mining (as well as iron and steel) was Dr. Ernst Poensgen, chairman of the board of management of *Vereinigte Stahlwerke* and deputy-chairman of its big mining subsidiary *Gelsenkirchener*. Poensgen was also chairman of the regional main industrial *Gruppe* of the Ruhr. The leader of the national subgroup of the *Steinkohle* producers was Dr. Gustav Knepper, chairman of the board of management of *Gelsenkirchener* and a director of Schering and other mining and mine-holding companies. The leader of the regional mining subgroup in the Ruhr was Brandt, a general handyman of the Ruhr interests who was also manager of the *Verein für bergbaulichen Interessen*; and the deputy leaders of the Ruhr subgroup were Ernst Busckühl, chairman of the board of management of Flick's *Harpener Bergbau* (and Flick representative on the board of various other companies) and the useful Walter Tengelmann.¹¹

IV. ADMINISTRATION OF GERMAN COAL PRODUCTION AND DISTRIBUTION

A. Bureaucratic Administration of Production.

Various official agencies participate in the planning and promotion of coal production. But the success of these efforts depends above all on the mine superintendents, their technical assistants, and the miners.

1. **The Planning Office of the Reich Ministry of Armaments and War Production** is responsible for the over-all planning of coal production, allocation, and distribution. In performing this task it relies heavily on detailed plans and recommendations submitted by the National Mines Bureau and the *Reichsstelle Kohle*. The former reports on out-

¹¹ See list of *Leaders of the Coal Industry* in the appendix.

put and proposes means by which production may be increased. The latter reports on requirements and suggests the manner in which the prospective supplies should be distributed among the numerous claimants. It is the function of the Planning Office to determine the adequacy of the proposed coal-production program and to reconcile the manpower and supply requirements of the approved program with those of other claimants. The Planning Office determines priorities of the various classes of consumers and checks the proposed allotments in relation to the over-all war program.

When programs are approved, they and the directives involved in them are issued either in the name of Albert Speer, the coordinator of all production for war purposes, or in the name of the *Reichsbeauftragter Kohle* (the National Coal Commissioner). The *Reichsbeauftragter* is Paul Pleiger. Pleiger gives policy direction to the *Reichsvereinigung Kohle* and the *Reichsstelle Kohle*, both of which are under the wartime authority of Speer though organizationally under the *Reichswirtschaftsministerium*.

2. Reichswirtschaftsministerium Hauptabteilung II, Abteilung Bg: Bergbau (Mines Bureau, in Division II of the Ministry of Economic Affairs). In February 1935, the various German states were informed that henceforth their mines bureaus would be considered agencies of the Reich. It was not until the end of 1942, however, that they were formally incorporated in the Reich governmental system. Neither action made any great change in the manner in which the field services operate. The law of 1942 seems to have been promulgated largely to enable an orderly reorganization of the mining administrative regions, some of which were quite small. For the time being, all old regional administrative centers were retained; but two, Clausthal and Karlsruhe, received temporary status. The regional offices (*Oberbergämter*) to have permanent status were—

Bonn.	Freiberg (Saxony).	Munich.
Breslau.	Halle.	Saarbrücken.
Dortmund.		

Vienna was also named a provisional headquarters. The boundaries of the regions were not immediately set but it is possible that jurisdiction over western Austria may have been transferred to the Munich office, which is much nearer than Vienna to that area.

The traditional functions of the Mines Bureau and its field services are:

- a. Exercise of the state's prerogatives over mineral deposits, i. e., leasing of rights and adjudication of disputes involving such rights;
- b. Mine research and mining experimentation, primarily in connection with safety and health but also in the interest of conservation, utilization, and operational efficiency;

c. Supervision of mining operations to ensure compliance with laws and regulations of various kinds, including measures designed to ensure safety in operations (through the *Grubensicherheitsamt*—Mine Safety Office), to protect the health of workers, to prevent damage to properties on the surface (for example, to prevent the ground from sinking after the removal of minerals), and to prevent wasteful exploitation;

d. Supervision of the training schools for apprentices and mine workers in the lower ranks;

e. Participation in the administration of state operated mines;

f. Collection of mining statistics.

While all mines are under the jurisdiction of the Bureau, a very large part of the work is connected with coal. Potash, salt, copper, and zinc are probably next in importance.

The director of the Mines Bureau and the heads of the regional offices have the rank of *Oberberghauptmann* (Chief Mine Overseer). Each regional *Oberbergamt* has a technical staff (*Bergrat*), a health adviser, and a mines advisory committee (*Bergausschuss*).

Under each *Oberbergamt* are district offices (*Revierbegämter*) that are headquarters for the mine inspectors and other officials who work closely with the mines. Even under the Republic the mine inspectors were classed as auxiliaries of the state police because they enforced mining regulations and reported infractions directly to the state's attorney. The inspectors were in the past men of legal and advanced technical education. In general they performed their work conscientiously, but there was occasionally collusion with mine officials. The power of the men in the mines services caused them to be courted with favors of one kind and another. It was not unusual for them to leave the public service for jobs with the mine-owning combines.

There is no indication of how far the Mines Service has been nazified, though it is reported that all administrative positions have been filled with Nazis. At latest report the director of the Bureau was a man named Gabel, who was also sitting on the management boards of confiscated Czech mines awarded to *Reichswerke* "Hermann Göring." His administrative officer was likewise on the boards of confiscated mining companies.

Some staff members may also be Nazi appointees but the work is so technical and requires so much experience that it seems probable that the majority are survivors of the old state services. The position of the inspectors in relation to the state's attorney leaves them open to the approval and orders of the Himmler-directed police organization. If any of the inspectors is a Nazi sympathizer, or if he acts in collusion with the business managements of the mining companies, he might very effectively sabotage the Allied production program.

3. The other offices in the Ministry of Economic Affairs concerned with coal are not in any special division or subdivision. Rather, they are grouped in a miscellaneous collection of agencies under the heading *Geschäftsbereich*. Most of these agencies are of a temporary or emergency character, or they have been taken over from the states and conquered territories but not yet incorporated in the permanent governmental structure. Among them in 1943 were offices administering mines in Czechoslovakia, Poland, and other conquered areas, as well as the *Prüfungsausschuss für das Bergfach* (Examining Committee for the Mining Industry). The last-named office checks the statistics and reports of the industry.

4. The Prussian *Geologische Landesanstalt* (State Geological Institute) has become a national agency and directs the work of similar bodies in the other states. It concerns itself primarily with the mapping of terrain and the geological exploration of Germany and other areas. Its maps and records on German mineral deposits would be especially valuable if records in the mine offices, the *Oberbergämter*, and the *Revierbergämter* are destroyed.

B. Management of Mining Companies and Mining Operations.

Like other German stock companies, each coal-mining company has an *Aufsichtsrat* (supervisory board or board of directors) and a *Vorstand* (board of managers). *Gerwerkschaften* and other partnerships often have similar bodies though their names may differ somewhat. The *Aufsichtsrat* is elected by the stockholders and its members are usually the holders of the largest blocks of stock, or their representatives. The *Aufsichtsrat* selects the board of managers. The board of managers may consist of the so-called "civil servants of industry"—that is, technical employees who have worked their way up through the company.

The members of the supervisory and management boards of the Reich mining companies are appointed. They are usually civil servants who represent the interests of the Mines Service, the public treasury, or state financial institutions. They perform their board duties without relinquishing their regular positions in the government.

Both the *Vorstand* and *Aufsichtsrat* are concerned with policy making and general administrative matters. The full responsibility for all ordinary mining operations is borne by the superintendent, who asks for authorization from the *Vorstand* or *Aufsichtsrat* only in the case of unusual expenditures and matters involving long-term policy.

The size of the German mining companies, the quantity of coal accessible at various levels from a single shaft, and the number of auxiliary operations (such as coking and briquetting) that may be carried on by one company, have caused development of a system of

mine management somewhat more formal and complex than that prevalent in the United States. A large company with shafts in a number of localities may divide its mines into groups, each of which is under a general superintendent (*Berginspektor* or *Oberbergdirektor* or *Bergwerksdirektor*). Under him is an assistant general superintendent (*Bergdirektor*) for the mines of each locality. Under the *Bergdirektor* are superintendents of various grades, each called a *Betriebsleiter* (work director), with a prefix indicating the work he directs. The average company producing some 2 million tons of coal a year would ordinarily have two mines superintendents (*Bergbetriebsleiter*), one shaft superintendent (*Schacht-Betriebsleiter*), and one surface superintendent (*Obertags-Betriebsleiter*). Titles vary somewhat from district to district but these are the commonest.

In smaller companies the *Bergdirektor* or even the *Bergbetriebsleiter* may bear the full responsibility for mining operations. These responsibilities include:

Production.	Compliance with safety and
Development.	other governmental regula-
Shipping.	tions.
Supply procurement.	Development planning and
Cost accounting.	mine mapping.
Financial accounting.	
Labor relations and employ-	
ment.	

The responsible superintendent has access to the mine's bank account and can without special authorization make payments and draw out cash for all ordinary operational expenditures, including the payment of wages and salaries. Usually the cashier is a cosigner of checks. When all sales are handled through a cartel, the cartel usually acts as a collection agent for the mining company. It deducts a percentage for syndicate expenses before forwarding receipts to the company or its bank. As a rule, the superintendents of all ranks are mining engineers graduated from the higher technical schools. The surface superintendent may be either a mechanical or an electrical engineer. Formerly the German technical education was of good quality, and the higher positions were attained only by working up through the ranks.

At the highest level below that of superintendent is the *Obersteiger* or *Betriebsführer* (work leader or mine boss). Each section of a mine is in charge of a *Betriebsführer*. He is responsible for all operations within it, including mining, hauling, loading, safety precautions, and operation of the mechanical installations. Other mine bosses have charge of hoisting in the main shaft, haulage, and control of the ventilators. Within the mine organization, the mine bosses have more

direct responsibility than any one else for the smooth functioning of all operations. In the past many of these were graduates of the higher mines schools and had had long practical experience.

Under each boss are several foremen (*Steiger* or *Oberhauer*), the number depending on the size of the mine. As a rule they formerly had a better education than the other miners and in general reached their position through long experience and ability. But their close relations with the miners, and the extent to which they could influence their thinking, sometimes brought political influence to bear on the appointments.

The Nazis have relaxed the standards for appointment, though in the past any man might be appointed a foreman. Usually the appointment was proposed by his superior, the mine boss (*Betriebsführer*), to the mine superintendent, who, in turn, notified the *Revierbergamt*. This office had considerable influence over the appointment of foremen and superintendents and could prevent the appointment of any man with a bad safety record.

The number of men under each foreman was limited to 50 before the war, but this rule has been lifted as a result of the shortage of foremen, some of whom have been transferred to operate the mines in conquered countries. The increase in the number of men under one foreman and in the number of inexperienced miners must have raised the accident rate considerably.

A chart in the appendix shows the administrative and supervisory organization of a typical German mine and the extent to which all technical operations are the responsibility of the general superintendent.

C. Allocation and Distribution.

Because of the importance of coal to the whole war economy, power over allocation and distribution was concentrated in one authority at a much earlier period than in the case of other industries. In 1933 an *Überwachungsstelle* (Supervisory Office) was established in the Ministry of Economic Affairs to supervise the imports and exports of coal and potash. With the outbreak of war the Supervisory Offices became *Reichsstellen* (i. e. National Offices with greater authority) and their fields were expanded. In the reorganization the administration of coal was separated from that of potash. Later the authority of the *Reichsstelle Kohle* was further strengthened by making its director the director of the compulsory association of the industry.¹²

1. The *Reichsstelle Kohle* is organizationally among the *Geschäftsbereich* of the Ministry of Economic Affairs, but it receives its policy

¹² In 1942 the headquarters of the *Reichsvereinigung Kohle* was placed in the same building as the *Reichsstelle Kohle*.

directives from the Ministry of Armament and War Production through the *Beauftragter Kohle* (Coal Commissioner), Paul Pleiger. Like the other *Reichsstellen* it was initially, and probably still is, supported by assessments levied on the members of the coal industry. Probably the funds are collected by the *Reichsvereinigung Kohle*.¹³

In performing its functions, the *Reichsstelle* relies heavily on its records of past operations. Thus, the planning of each new program of allocations begins with a review of the requirements of the previous program period. The initial program was based on the results of a complete census of coal consumption in 1938-39. In addition the *Reichsstelle* depends on monthly reports of local and regional consumption, distribution, and requirements; on reports from the cartels on coal shipments; on reports from *Reichsvereinigung Kohle* and the Mines Bureau on current and planned production; and on reports of the requirements for the military services, transportation agencies and certain other special types of consumers whose needs are not confined to a single region. Exports to countries that are manufacturing for Germany must also be taken into account.

The steps in program planning are—

- a. Collection, collation, and evaluation of data from these sources;
- b. Comparison of data on supply with data on requirements;
- c. Comparison of the total requirements of the major consuming groups with their priority ratings;
- d. Study of ways in which the requirements of the various groups may be reduced; for example, by shifts in the type of fuel, by the substitution of power from the public system for privately generated power, by the tightening of regulations concerning permissible temperatures and the periods during which they may be maintained, and by the elimination or reduction of consumption by low-priority groups.

The allocation of coal to the several consumer groups frequently involves consultation with other agencies. For example, because the coal requirements of industrial users depend on the orders placed with and the raw materials allocated to particular plants, coal allotments must be made in consultation with the Planning Office and the materials-allocation and industrial-production agencies of the Speer Ministry.

When the total allotment for each major group of consumers has been determined, and approved by the Planning Office, the allotments

¹³ One of the few real powers conferred on the *Reichsvereinigung Kohle* in the order establishing it was that of collecting funds from its members, with stiff penalties for failure to comply with orders on the subject. The funds were to be used to maintain a staff. Thereafter, members of the coal industry were informed that the *Reichsstelle Kohle* was "under direction" of the *Reichsvereinigung Kohle* through "personnel-union"—i. e., through Paul Pleiger, the director of the union, with powers over it through the leadership principle.

are broken down by regions. Agencies in the regions are then notified of the quantities that will be available for each major group of consumers.

The *Reichsstelle*, cooperating with transportation authorities, also determines the sources of supply for each consuming area. The decisions are sent to the rationing sections of the *Wirtschaftsämter* and to the cartels. The latter elaborate the distribution program.

Distribution planning has been vastly complicated by intensive bombing. The disruption of industrial production, the removal of plants, and the shifts of population caused by such bombings frequently play havoc with established consumption and distribution patterns. It therefore becomes necessary to redefine the distribution areas of particular mines and assign new sources of supply to specific localities. The problem of meeting urgent and shifting requirements has also been intensified by the disruption of transportation facilities. As a partial solution, consumers have been ordered to take the fuel allotted to them whenever it becomes available. This order applies even to household consumers. They are told to store fuel in bedrooms and living rooms if no other space can be found.

It is believed that many of the technical and clerical personnel of *Reichsstelle Kohle* are survivors of a long series of reorganizations of national agencies dealing with coal production and distribution. Some may have entered the civil service under the Empire. During the war of 1914-18 several technical staffs were engaged in planning coal production, distribution, and utilization. This work was continued under the Republic in connection with the *Reichskohlenrat*, which also was under the Ministry of Economic Affairs. The Nazis have had a succession of official bureaus and agencies engaged in the same kind of work.

But under every type of government there has been a need for technical and clerical personnel experienced in dealing with coal problems. Whatever the name of the new body and the political character of its policy director, it would naturally turn to the people who had been doing the detailed work when recruiting its own staff.

2. The regional, district, and local *Wirtschaftsämter* of the *Wirtschaftsministerium* have sections that represent the *Reichsstelle Kohle*. These sections are responsible for rationing the coal allotted to the area under their jurisdiction. Local and district offices are under supervision of the regional *Wirtschaftsämter*. The regional *Wirtschaftsämter* are themselves under double supervision. The supreme economic authority in the region is the *Rüstungskommission* (Armament Commission), of which the president of the regional *Wirtschaftsamt* is a member. The supreme political authority of the region is the regional Nazi party *Gauleiter*, who is also a member of the Commission.

At an earlier period the *Reichsstelle Kohle* and other allocation and distribution planning agencies attempted very detailed breakdowns of regional and local requirements. Such plans were found much too rigid.

Later the regional and district allocations were broken down only by broad groups of consumers and the *Wirtschaftsäämter* received authority to make certain shifts in allocations to meet needs unforeseen when the requirements were reported. The *Reichsstelle* draws up regulations for the guidance of the *Wirtschaftsäämter* in meeting such situations.

On the basis of their sources of supply and the system used in determining their allotments, all consumers may be divided into two major classes: those who buy from retailers and wholesalers, and those who make purchases directly from the mines.

a. Consumers who buy from retailers and wholesalers.—In general the retail buyers are users who do not consume more than an average of 20 tons of coal a month during the period of heaviest consumption. They include householders, operators of apartment houses, hotels, small office buildings, small manufacturers, and distributors of consumer goods. The wholesale buyers include coal retailers and all nonretail buyers who do not purchase coal directly from the mines. When rationing began each buyer who depended on a retailer applied to the rationing office for a coal card. On this he reported his fuel consumption in 1938–39. He also reported to the rationing office the name of the dealer from whom he would make all his purchases in the future. He then registered on the customer list of this dealer. The dealer in turn registered himself with a specific wholesaler and reported his choice to the rationing office.

Each retail purchase of fuel is recorded on the consumer's card and on the retail dealer's list. At intervals the consumer visits the rationing office to have his card stamped or renewed. This enables the office to check the reports of the retailer on the quantities of coal sold against the amount consumers on his list have received. There is a similar check on the quantity of coal a retail dealer reports he has received and the quantity a wholesaler reports that he has sold.

Consumers who purchase coal in wholesale quantities are also required to register with a particular dealer and to obtain a purchase authorization from the *Wirtschaftsamt*.

b. Consumers who buy directly from the mines.—The buying orders of this group are checked and approved by the *Wirtschaftsäämter*, or by the Armament Commission. A few privileged consumers have been permitted to choose the company or mine from which they buy. In the case of the great majority of consumers, however, orders are sent to the cartel sales office serving the region and that office selects the mine from which the coal is to be shipped. The selection is made in

accordance with the transportation regulations specifying that consumers must be served from the nearest source of available supply.

The fuel requirements of the individual members of certain groups of large consumers, such as office buildings, hospitals, and other public institutions, vary little from one year to another. Hence, the *Reichsstelle* changes their quotas by uniform percentage additions or reductions applicable to all members of the same group. Allotments to manufacturing and commercial enterprises, however, are made on an individual basis. Thus a *Wirtschaftsamt* will not issue a fuel card or approve the buying order of such an enterprise until its fuel requirements have been validated by the Distribution Office of the *Fachgruppe* to which it belongs. These bodies have jurisdiction not only over the allocation of fuel, but also over the allotment of raw materials and the distribution of orders among their members. Although they exercise these powers regionally and locally under the general supervision of the *Rüstungskommission*, it is obvious that the success or failure of a particular enterprise may depend upon the extent to which it enjoys the friendship of the leading men in the *Gruppen*.

The power of the leading clique in a *Gruppe* to destroy competitors by withholding materials and supplies is reinforced by their authority to propose that certain enterprises be closed as inefficient or unessential. A few coal dealers, for example, may build up their own trade by reducing the amount of coal allotted to competitors, and then report that these competitors do not have enough business to justify their relicensing. Since the operations cannot be carried through without the approval of the Nazi Party leaders, the system has gradually placed nearly all production and trade in the hands of Nazis and Nazi sympathizers.

V. MINE OPERATION AND THE MINE WORKERS

A. Mine Operation.

1. *Steinkohle*.—The majority of the *Steinkohle* comes from seams that average about 4 feet in thickness with a dip of approximately 25°. The beds of the Ruhr that are being worked lie in general 1,300 to 2,600 feet below the surface but those of Silesia are much nearer the surface. Especially in the Ruhr, seams appear one above the other, giving a great concentration of coal that can be worked from a single shaft. The average hoisting depth in the Ruhr is 1,800 feet.

Double shafts with a capacity of around 1 million tons a year are used for the main hoisting. At the main shaft, loading and unloading is mechanized. The cages of the main shafts, which are used for the transportation of both men and coal, have multiple platforms. A few modern mines also use skip hoisting.

Coal is usually hauled away from the various faces in cars drawn by chains and cables or by small locomotives powered with compressed air or storage batteries. Belt conveyors are used only in mines where equipment has been thoroughly modernized. The modernized mines also use braking conveyors on slopes and screw-conveyors in the staple (or blind) shafts. The older mines use hoists in both places.

In the main haulage galleries the locomotives are larger than in the side galleries and are operated with electric trolleys, storage batteries, compressed air, gasoline, or Diesel engines.

Most mine cars have a capacity of less than a cubic meter, though the more efficiently equipped mines have cars that hold 2 or more cubic meters of coal.

In general, some type of the long-wall system is used in the *Steinkohle* mines, though pillar mining is occasionally resorted to.

The degree of mechanization, especially in the Ruhr, is high. Except in Upper Silesia, where the hardness of the coal makes undercutters necessary, *Steinkohle* is usually removed from the face with a dig-hammer. With some exceptions, it was loaded by hand before the war, as a rule unto shaker conveyors that took it to the cars.

While the degree of mechanization is high, the equipment is largely operated with compressed air and the output per man is lower than it would be with electrically operated equipment. The type of equipment is determined in part by tradition and in part by laws designed to promote safety and conservation. The laws could, in some mines, be relaxed without danger.

The output per man is much lower than in the United States (see table in next section). This is partly a result of the type of equipment but even more of the regulations on backfilling (stowing), which are intended to prevent the extensive settling of the ground that is injurious to surface property and causes losses in other seams.

Backfilling, through its demands on manpower, considerably increases the cost of production. In 1936 more than 40 percent of this work was done by hand, even in the Ruhr.

As backfilling does not provide adequate support everywhere underground, a considerable amount of coal is lost by the need for leaving supporting pillars of coal (*Schutz-Pfeiler*) at certain places. The pillars are whitewashed to enable inspectors to detect the deliberate removal of coal from them, or their wearing away through careless rubbing. Damage to the pillars is sometimes hidden from inspectors by touching up the weakened spots.

These pillars are one of the points where saboteurs could most easily stop production for many months, either by gradual stealthy removal of coal or by use of explosives. Destruction of a pillar near the main shaft might stop all production for a long time.

German mines make much more extensive use of steel and reinforced concrete props than is customary in the United States. The steel props can be used repeatedly and the quantity of new ones required at one time is low except when extensive development is going on. Seven million cubic meters of timber were used annually by the mines before the war. While part of the props were imported, the timber supply of Germany is adequate to meet this need.

As a rule explosives are little used in the western mines though they are important in other areas. Every mine has powder houses, holding at a maximum a month's supply; some always contain large quantities of explosives. They are in charge of one man who is also responsible for their transportation and use. He operates under close supervision of the government inspectors and according to strict regulations.

Neither these nor other governmental mining regulations are unreasonable. In the past the number of important regulations was comparatively small but enforcement was strict. The result was a good safety record.

Government regulations on ventilation have been much stricter than in the United States because of the high gas seepage in some mines and the depth of the workings. The maximum gas content must be less than 1 percent and the minimum quantity of air per man per minute 106 cubic feet.

Electric lights are used underground, with portable batteries at points where permanent installations are not needed. On important faces, installations of a permanent character are used.

2. Brown Coal.—Operations in the brown-coal fields are highly mechanized, as most of the brown coal is obtained from open pits. Long drifts are driven into the beds and the water is pumped out, if ditching does not provide adequate drainage. The intervals between the pumps are often short.

Stripping is done with large excavators and steam shovels. Usually, chain belts carry off the overburden to cars that are drawn by locomotives to pits and other points where it is smoothed off and made suitable for agricultural use. Just before the war, new and more efficient equipment was being introduced.

It is believed that all the increase in German coal production since 1938 has been achieved in the brown-coal fields, where much less labor is needed and the percentage of skilled labor is relatively low.

B. Mine Workers.

Long before the war began, Germany, like other industrialized countries, was experiencing difficulty in recruiting mine labor from among the native population. Coal mining requires experienced men

who have, by and large, entered the trade as apprentices. For various reasons, the factories are more attractive than the mines to boys starting to earn livelihoods. During the period of acute unemployment that began in 1930 many German miners migrated; when production increased again their places were taken by immigrants from the less industrialized countries.

At the time the Nazis turned to open war, the earlier plan of deferring all miners was not adhered to. A serious shortage of labor soon developed. It was not possible to recruit many experienced miners for Germany in the conquered countries since the Nazis desired to exploit the mines in such areas. Moreover, the working force in other countries had been depleted by conscription and evacuation even before the Nazis took charge. A more efficient deferment program was instituted after it became apparent that the whole war production program would fail unless there was a more adequate supply of coal. Later a training program in mining was begun among war prisoners and slave laborers, and in 1944 the German press was proclaiming its success and offering per-man output figures to prove that even white-collar workers could be taught coal mining in a few months.

The urgent need for coal has placed the miners, both native and foreign, among the most favored groups of wage earners. By 1943 food rations for them were exceptionally high and they were also receiving permits for additional clothing. Even prisoners working in the mines were granted special privileges.

Number of Persons Employed.—There are no reliable figures on the number of workers in German mines during the war. Such estimates as have been made cover the Greater Reich and are admittedly unreliable.

The latest available employment figures for the *Altreich* are for 1936, the year before the *Steinkohle* output approached an all-time high and when the brown coal production was only a little more than half that of 1943.

Total employment in Altreich coal mining enterprises. 1936

Type of mining	Total employed ¹	Total underground	Total open pit
<i>Steinkohle</i>	368, 464	261, 449	-----
Brown coal.....	59, 871	6, 726	17, 602
Total.....	428, 335	268, 175	17, 602

¹ Includes surface workers as well as underground and open pit.

A table showing output per man per day in the Ruhr mines over a period of years contains data on employment in that area for 1937,

a year of sharp production increase. This table is included in its entirety because it reflects the results of increased mechanization. It suggests that if there should be a shortage of spare parts, and of new machinery to replace that which has been worn out during the war, the manpower needs of the mines will be greatly increased.

Employment and per man output in the Ruhr

Year	Hours per day	Total number of wage earners in Ruhr mines	Percent of 1913	Production per man per day					
				All wage earners		All underground workers		Miners only	
				Tons	Percent	Tons	Percent	Tons	Percent
1913-----	8.5	372,389	100	0.945	100	1.161	100	1.845	100
1924-----	8	443,552	119.0	.860	91.2	1.081	93.1	1.903	103.1
1925-----	8	409,404	109.5	.946	100.3	1.179	101.6	2.100	113.8
1926-----	8	364,365	98.4	1.114	118.1	1.375	118.4	2.378	128.9
1927-----	8	384,052	103.2	1.132	120.0	1.386	119.4	2.453	132.9
1928-----	8	359,250	96.5	1.191	126.3	1.463	126.0	2.515	136.3
1929-----	8	354,577	95.4	1.271	134.8	1.558	134.1	2.638	143.0
1930-----	8	314,973	84.8	1.353	143.5	1.676	144.4	2.795	151.5
1931-----	8	236,040	63.5	1.487	157.5	1.888	162.6	3.070	166.4
1932-----	8	190,580	51.3	1.625	172.3	2.091	180.1	3.338	180.9
1933-----	8	196,172	52.7	1.675	177.6	2.164	186.4	3.434	186.1
1934-----	8	209,352	54.3	1.677	177.8	2.162	186.2	3.388	183.6
1935-----	8	218,682	58.0	1.692	179.4	2.182	187.9	3.359	182.1
1936-----	8	226,125	59.4	1.710	181.3	2.197	189.2	3.373	182.8
1937-----	7	270,259	84.1	1.627	172.4	2.054	176.8	3.196	173.2

The 1937 decline in output per man per day was chiefly a result of a large increase in the number of inexperienced workers, or workers inexperienced in German mining methods.

Except in the number of apprentices, the composition of the wage earning staffs did not greatly change in the two decades before the war.

Types of wage earners by percentage

Categories	1913	1922	1925	1926	1927	1928	1929
Hewers and helpers-----	50.74	42.26	47.67	48.79	50.51	51.04	51.57
Miscellaneous underground workers-----	26.25	31.30	28.34	27.71	27.70	26.81	26.49
Miscellaneous surface workers-----	19.31	22.62	22.56	22.21	20.42	20.70	20.30
Apprentices-----	3.70	3.73	1.37	1.23	1.31	1.39	1.49
Women workers-----	-----	.09	.06	.06	.06	.06	.06

With increased mechanization of the mines, and the concentration of operations and ownership, the proportion of salaried employees to wage earners increased.

Number of salaried employees and percentages per 100 wage-earners

Year	Technical		Clerical		Total	
	Number	Percent	Number	Percent	Number	Percent
1913-----	15, 358	3. 60	4, 285	1. 01	19, 643	4. 61
1923-----	20, 623	3. 83	9, 740	1. 81	30, 363	5. 64
1926-----	16, 165	4. 20	7, 193	1. 87	23, 358	6. 07
1929-----	15, 734	4. 18	7, 044	1. 87	22, 778	6. 06

C. Political Orientation of German Miners.

After the acute economic depression developed in 1930 there was some swing to the left among the German miners, but the main body of the men clung to their traditional political affiliations. There was relatively little interest in Nazism, as is shown by the votes for members to the employees' councils in the Ruhr in 1931.

*Votes to Ruhr mine employee councils and political composition of the councils,
1931*

Name of union	Total number of votes	Percent	Members elected					
			Mine council (all employees)		Laborers' council		Mine executive committee	
			Num- ber	Percent	Num- ber	Percent	Num- ber	Percent
German Miners' Union (Soc. Dem.)-----	76, 938	35. 91	663	38. 86	782	38. 56	293	45. 85
Christian Labor Union-----	52, 002	24. 27	464	27. 20	545	26. 87	183	28. 64
Nazi Labor Union-----	8, 615	4. 07	49	2. 87	62	3. 06	6	. 94
Syndicalist and Commu- nist Labor Unions-----	64, 634	30. 17	464	27. 20	561	27. 66	147	23. 00
Independent Unions-----	11, 073	5. 13	55	3. 22	67	3. 31	8	1. 26
Unorganized Miners-----	980	. 45	11	. 65	11	. 54	2	. 31
	214, 242	100. 00	1, 706	100. 00	2, 028	100. 00	639	100. 00

Membership in the German Miners' Union was proportionately lower among the miners than in other important trades, owing to the number of men who belonged to the Catholic union (the Christian Labor Union). The Nazi showing in this Ruhr mine election was much weaker than in the general elections of the country as a whole, despite the attitude of the mine managements, which were at the time helping to bring Hitler to power.

Union partisanship was strong among the miners of Germany and they did not take kindly to the abolition of the organizations of their own choosing in favor of the single organization set up by the Nazis.

VI. RECOMMENDATIONS

A. Need for Control of the German Coal Industry.

Immediately after German military defeat or surrender the Allied authorities should assume full control over all physical properties, other assets, and facilities of the German coal industry, appoint representatives to all policy-making positions in the industry and in public and semipublic agencies now exercising control over the industry; and supervise the operations of the private and official German organizations, agencies, and staffs essential to production, allocation, distribution, and rationing.

All properties, businesses, and facilities of German coal enterprises owned or controlled by the Reich, the states, or the Nazi Party should be taken over by the Allied authorities. Moreover, if it is found necessary or desirable, in certain or in all cases, for the Allied authorities actually to take over the properties, businesses, and facilities of private coal enterprises, in order to effectuate control, this should be done.

Full and complete control of the German coal industry is essential for the protection of the interests of the United Nations, and for Allied military security for the following reasons:

1. The Allied powers will want German coal for various purposes; to the extent that desired deliveries of coal are contrary to German interests, it cannot be assumed that they would be made without compulsion.

2. Maintenance of order in Germany and in other parts of Europe will depend to a considerable extent on the United Nations control over the policies and administration affecting German coal production and distribution. Lack of coal for the essential needs of the German and liberated areas, especially for the transportation of food, might give rise to disorders endangering public safety and that of the occupying and liberating forces.

B. Allied Coal Board for Germany.

1. In view of the over-all importance of coal production and distribution, the need for unified control, and the necessity, if regional administration were attempted, for a complete reorganization of the existing control, marketing, and distribution system, it is recommended that the Occupying Powers administer the German coal industry by joint action.

2. The instrument of administration should be an *Allied Coal Board for Germany*, to consist of three to six representatives of the Occupying Powers, who will be assisted by Allied planning and operational staffs, such staffs to supervise and, if necessary, administer official and

other German agencies and organizations operating the German coal industry. It is estimated that a staff of 200 to 250 Allied officers having experience in the coal industry and in related operations will be adequate for all of Germany.

3. Within the framework of policy directives from higher authorities, the Allied Coal Board should:¹⁴

a. Exercise all policy-making functions in connection with the coal industry of Germany, including policy on the production, allocation, distribution, and rationing of coal, brown coal, coke, briquettes, other processed coals, and coal byproducts;

b. Prepare through Allied and German agencies programs for the production, allocation, distribution, and rationing of coal and the other above-named products; issue directives on such programs to its Allied Administrative Staff and to German organizations and agencies responsible for carrying out the directives;

c. Formulate policies on denazification of the German coal industry, and on the administration of sequestered coal and related properties, facilities, and agencies under jurisdiction of the Board;

d. Collaborate with a European Coal Commission in planning exports of German coal and on international problems concerned with the procurement and distribution of supplies essential for operation of European mines;

e. Issue directives to its administrative staffs on the policies, programs, and procedures it has determined; and to the German organizations, agencies, and staffs to be held responsible for their fulfillment;

f. Coordinate and supervise the work of its Allied headquarters and regional administrative staffs.

4. The *Allied Coal Board Planning Office* should perform these functions for the Board:

a. Prepare the production and other programs for Board approval;

b. Advise the Board on technical problems and propose policies and measures for the Board's approval;

c. Study the reports of the administrative staffs of the Board and report regularly on program progress for the country as a whole;

d. Supervise the work of the Reich Mines Bureau and the *Reichsstelle Kohle*, which should perform all detailed planning work that can safely be left in German hands, the Allied experts handling only such broad aspects of the programs as the total allocations of coal for Germany and, in collaboration with other Allied economic officers, the totals for certain broad classes of consumers.

¹⁴ See later recommendations for detailed proposals on the Allied and German staffs to be used; also see the appendix for chart indicating the organization and functions of the Allied Coal Board and its subordinate Allied staffs and their relation to German staffs and agencies.

The Allied staff of the Planning Office should include two or three coal-mining engineers, one coal utilization expert, one industrial engineer, one requirements analyst, and one certified accountant familiar with corporation records.¹⁵ There should also be a small Allied clerical staff.

5. The administrative functions of the proposed Allied Coal Board should be performed through a *Headquarters Administrative Staff* (or staffs, if administration is on a zonal basis).¹⁶

It should be the responsibility of the Headquarters Administrative Staff (or staffs) to carry out the directives of the Allied Coal Board, to report regularly to it on the operation of the programs, and to account regularly to it in connection with sequestered properties being administered for the Board.

Approximately 12 Allied officers (see organizational chart for qualifications and functions) are needed for the Allied Coal Board Headquarters Administrative Staff. Some clerical assistance will be needed and the officer designated Sequestered Property Custodian will need a German clerical and accounting staff.

6. Six to nine *Allied Regional Mining Offices* should be established under jurisdiction of the Allied Coal Board as the main centers of control of the German coal industry. The number of offices will depend on whether two or three of the minor coal districts can be handled efficiently from more important centers nearby.

The size of the Allied staff in each regional office is greatly dependent on the size and importance of the mining industry under its jurisdiction. At a minimum, it should have one regional administrative officer; one regional mining engineer, to be assisted by Allied mine inspectors in numbers proportionate to the importance of the mining region; one coal-distribution officer, to supervise a German accounting and clerical staff (see par. 17); one regional mine-supply officer; one regional transportation officer, to provide liaison with the Allied transportation authorities; one regional sequestered-property custodian, to be assisted by an Allied accounting officer, who will supervise a German accounting and clerical staff.

The Allied Regional Mining Offices, acting in accordance with the directives of the Allied Coal Board and under supervision of the Allied Coal Board Headquarters Administrative Staff, should:

a. Supervise the operations of all public and private German agencies and organizations engaged in the production, marketing, and shipment (or carrying) of coal, brown coal, coke, briquettes, and coal byproducts, and those engaged in related activities within the region under jurisdiction of the respective offices;

¹⁵ See CAD Guide: *Civil, Commercial, and Family Law in Germany*.

¹⁶ See chart in the appendix.

The German agencies and organizations under supervision of the Allied Regional Mining Offices will include :

Official Agencies.

The *Oberbergämter* (9).

The *Revierbergämter* (probably less than 50).

Publicly and Privately Owned Companies and Organizations.—

All publicly and privately owned companies engaged in coal mining, processing, marketing, storing, and carrying (insofar as such carriers are not supervised by Allied Transportation Officers).

b. Administer, and be responsible for the administration and protection of all sequestered properties of coal and related companies:

c. Act as claimants for supplies for the mines:

d. Exercise strict control over all sales and shipments in accordance with the directives of the Allied Coal Board to prevent coal from being used for any purpose and by any organizations not authorized by the Allied Coal Board, and otherwise to further the objectives of control of the German coal industry.

C. European Coal Commission.

It is anticipated that the coal shortage in liberated Europe will be so acute that establishment of a European coal pool will be necessary. It should be administered by an international *European Coal Commission*. Claimant as well as supply countries should be represented on such a commission to prevent its having the character of a marketing syndicate.¹⁷

D. Protection of Property, Assets, and Records.

1. As an antisabotage measure, it is recommended that, as troops move into Germany, the properties and business offices of the following be occupied and placed under guard:

The coal-mining companies, the coal and coke cartels, and their parent, subsidiary and affiliated organization;¹⁸

¹⁷ The functions of such a Commission should include—

a. Allocation of coal among the various countries on a basis conforming with Allied policies, without regard for credit ratings, peacetime markets, or pre-war marketing agreements:

b. Maintenance of wartime restrictions on fuel consumption in all countries until the shortage is abated:

c. Encouragement of international cooperation in procuring and allocating machines, machine parts, mine props, lubricants, and other supplies needed for coal production:

d. Aid to countries in need of supplies and assistance for restoration of wrecked and damaged mines:

e. Mediation on behalf of governments endeavoring to facilitate the return of their miners from other countries, or to recruit mine labor abroad.

¹⁸ At the mines special care should be taken to guard the following: powderhouses, power plants, hoists, ventilators, washeries, loading equipment, locomotives, briquetting equipment, steam shovels, and excavators.

The Reich Mines Bureau in the *Wirtschaftsministerium*, and its regional and local offices—namely, the *Oberbergämter* and the *Revierbergämter*;

Reichsstelle Kohle in the *Wirtschaftsministerium*;

Regional and local *Wirtschaftsämters*;

Reichsvereinigung Kohle;

Verein für bergbauliche Interessen, Essen;

The Planning Office of the Ministry of Armament and War Production.

During the past and present wars the Germans, when in retreat and unable to destroy facilities, have removed certain indispensable parts of equipment. They are more likely to attempt to do this in Germany than to wreck the mines.

2. Special care should be exercised to take into custody and prevent the destruction or removal of books and records (including personnel, rationing, and distribution records), mine maps, and other documents pertaining to the operation and administration of the industry.¹⁹

It must be expected that the Nazis will make every effort to secrete (possibly by micro-filming) and destroy all documentary evidence of Nazi ownership, improper ownership transfers, and actions for which retribution may be demanded. They are also likely to remove or destroy such records as are vital to Allied administration.²⁰

3. All current assets of the institutions listed above should be sequestered and their bank accounts frozen. All transfer of securities should be prohibited.

E. Allied Control of German Institutions and Organizations.

Within the limits permitted by military security and the policy of the United Nations, German public and private institutions essential to the operation of the German coal industry should be fully utilized, and, subject to the same limitations, their organization and manner of operation should be retained under Allied control.

But both security and policy require the following changes:

1. **Replacement of Policy-makers.**—All policy-making authority should be transferred to the Allied Coal Board and, without any exceptions, all persons now holding policy-making positions should be suspended from them. It is therefore necessary that the following persons be suspended from their positions immediately:

Reichswirtschaftsministerium Hauptabteilung II, Abteilung Bg: Bergbau (Reich Mines Bureau). The Director of the Bureau

¹⁹ See CAD Guide: *Preservation and Use of Key Records in Germany*.

²⁰ At the time of the occupation of the Ruhr in 1923, the French military authorities found that all records of mining companies and of the coal syndicates had been removed before French troops arrived.

(*Oberberghauptmann*), his chief administrative assistant, and the *Oberberghauptmann* of each of the nine regional mining offices (the *Oberbergämter*).

While it may be necessary to suspend some, or all, of the heads of the *Revierbergämter*, this would be done for other reasons, since they play little part in policy-making.

Reichswirtschaftsministerium, Reichsstelle Kohle: The Chief of the Bureau and possibly his principal assistant. The Reich Coal Commissioner or other official who is in charge of this bureau on the ministry level. (The official may be found in the Ministry for Armament and War Production rather than in the ministry named above.)

Reich Ministry for Armament and War Production: Central Planning Office. Reports indicate that there is little planning for coal carried on in this agency, though there is a "coal representative" in the office. He and any other persons found in this ministry making policy in connection with coal should be suspended (though any staffs found with them can, of course, be retained if found useful and acceptable from a security standpoint).

Companies and private or semiofficial organizations, mining, processing, marketing, or distributing coal and coal products and byproducts. As soon as the mines and the offices of companies and organizations in the groups named below have been occupied, the board of directors and managing directors (members of the *Aufsichtsrat* and *Vorstand*, or equivalent bodies in the *Gewerkschaften*, *Kommandit-gesellschaften*, partnerships, and other corporate forms), and directors of subsidiaries of such companies and organizations, should be suspended by general proclamation and, later, by specific notice; the *Wirtschaftsführer* should also be suspended. If these persons are not interned along with other leaders of the political and economic hierarchy, they should be forbidden, under penalty of imprisonment, to attempt to exercise any authority over the sequestered properties and assets formerly under their control, either directly or through agents, or to attempt to influence employees of the companies and organizations in discharge of their functions under the military government. The suspension of these people from authority should be published in the newspapers in all parts of the country.

The number of companies and organizations affected is approximately as follows:

Number of coal companies: Steinkohle, about 70, of which at least 10 are wholly owned by the Reich, or by corporations in which

the Reich is a major stockholder; brown-coal companies, 50 to 60, in some of which the Reich has large participation.²¹

Number of coke and briquette companies: Practically all of importance are primarily mining companies or coal consumers (i. e., iron and steel companies, gas plants, or chemical manufacturers) whose control will come through control of their coal allotments and through other agencies of the military government.

Number of marketing and distributing companies and organizations: Five *Steinkohle* syndicates, of which two (see pp. 18, 19) market or control the marketing of 94 percent of the coal and most of the coke; of these, one markets directly nearly 81 percent and has two large transportation subsidiaries; four brown coal syndicates, of which three market more than 98 percent of the brown coal and brown coal briquettes. (Large quantities of brown coal do not enter the market, being utilized directly at the mine by the mining companies for the manufacture of power or chemicals.)

Coal storage companies: There were storage companies at the ports, largely under control of the *Rheinisch-Westfälisches Kohlen-Syndikat*, the principal exporter. The number is uncertain.

Coal Dealers: It is unnecessary to take direct control of the wholesale and retail companies. While the large wholesalers should be kept under surveillance, they can be completely controlled through the allocation and rationing system.

Persons suspended from policy-making positions should not be used or employed in any other capacity by any agency or company operating directly under control of the Military Government or any of its Allied agencies. If they are known to be active Nazis or prominent collaborationists,²² they should be arrested or detained; all other persons suspended should be kept under surveillance.

The suspension of policy-making personnel will simplify the tasks of the Military Government by eliminating authority that would inevitably be hostile to the purposes of the Occupying Powers. It will also make operational personnel directly responsible to the Allied authorities for the fulfillment of their functions. The persons suspended, with very few exceptions, play no direct role in production and other essential operations.

²¹ As part I of this guide shows, many of these companies are small; in 1937 around 90 percent of the *Steinkohle* was mined by 21 companies and nearly 50 percent of the brown coal by 9. Since that time some new brown coal mining companies have begun operations but the number accounting for most of the production has remained small.

²² See list, *Leaders of the German Coal Industry*, in the appendix. The list is not complete.

2. Denazification.—The suspension of all policy-making personnel from official and private agencies, organizations, and corporations of the coal industry will automatically remove some of the most powerful members of the Nazi Party and their most active and dangerous supporters. But lesser personnel can be equally dangerous to military security and to the objectives of the United Nations. It is therefore recommended that all known active Nazis who are in positions of public responsibility be removed as soon as suitable replacements can be found; and that all such Nazis be removed immediately if they are in positions in which they can seriously interfere with the Allied program or commit physical sabotage.²³

This rule should be applied with special strictness in and around the mines, where the danger of disaster resulting from hostile activities is too great to permit hesitation. Fear that such dismissals might lessen production should not be a deterrent to prompt action. In all probability, the fanatical Nazis already have their orders on what they should do under military occupation. Hitler has repeatedly warned that the only thing fatal to Germany is meekness in the face of defeat. He has also written that at the time of the French occupation of the Ruhr the order should have been: "Blow up the furnaces; burn the bridges; flood the mines."

The incumbents of the following positions in every organization and agency in the industry are potentially dangerous Nazis:

Educational training directors, unless there is strong proof that work is wholly concerned with technical matters;

Personnel directors and their first assistants, as well as those in charge of efficiency ratings.

At the mines the records of persons who are in charge of personnel and training should be examined carefully by the Allied mine inspectors on their first visit. The records of foremen should also be studied, since the positions have in the past been filled at times by political pressure. Foremen are in position to intimidate the workers and to cause explosions that might kill thousands of men and stop production for a long period. It is believed that ridding the mines of dangerous Nazis is the one point on which both mine superintendents and employees of the *Oberbergämter* can be depended for cooperation.

The German mine inspectors provide a special problem. Their relation to the state attorneys²⁴ places them to some extent within the jurisdiction of the Himmler-directed police organization. Therefore, their records should be examined with special care to discover whether there is evidence of Nazi activities or of irregularities in the manner

²³ See CAD Guide: *General Principles for the Dissolution of the Nazi Party and the Elimination of Nazis*.

²⁴ See section on "Bureaucratic Administration of Coal Production."

of appointment. All inspectors who are discovered to be active Nazis should, of course, be dismissed. Even a suspicion of Nazi partisanship should be grounds for suspension because of the vulnerability of the mines to sabotage.

F. Adaptation of Certain German Institutions.

1. Reichsstelle Kohle and Reichsvereinigung Kohle.—

a. The *Reichsstelle Kohle*, an official agency of the government, was set up at the beginning of the war to handle coal allocations and rationing. It is supported, however, by fees levied on the coal industry. There is reason to believe that a good portion of its staff is composed of persons who have long been in government service, in work related to coal, and have survived a series of governmental and political reorganizations. It is much the most important coal body on the national level.

The *Reichsstelle Kohle* should be retained, subject to the removal or suspension of policy-making personnel and the elimination of active Nazis, wherever found, as recommended in paragraph 14. The *Reichsstelle's* anomalous status, however, should be changed, in order to make it a suitable agency for the Allied Coal Board. This can be accomplished by transferring its support to the budget of the *Reichswirtschaftsministerium*, to which it belongs organizationally.

b. The *Reichsvereinigung Kohle*, established in 1941, 2 years after the *Reichsstelle Kohle*, is directed under the "führer-principle" by Paul Pleiger, a trusted Nazi who is also the National Coal Commissioner, giving direction to the *Reichsstelle Kohle*, and business manager of the Reich-owned holding company Reichswerke "*Hermann Göring*." While the *Reichsvereinigung* was supposed to supplant the cartels it has not done so. In spite of Nazi publicity to the contrary, no evidence has been found to prove that the *Reichsvereinigung Kohle* gives any direction to the *Reichsstelle Kohle*,²⁵ has any official relationship to it (except possibly that of supporting it and consulting with it), or performs any function essential to the operation of the coal industry. Even if it did, the technical and clerical staff doing such work would have to be separated from its control, since the members of the *Reichsvereinigung* are the policy-makers to be barred from participation in the industry under the Military Government. The continued existence of this Nazi-created organization would endanger the Allied administration. The *Reichsvereinigung* should therefore be dissolved. If it should be found to have acquired any useful functions, or to have any technical staffs useful to operation of the coal industry,

²⁵ The full text of the order establishing the *Reichsvereinigung* makes no mention of the *Reichsstelle Kohle*, though the latter had already been functioning for some time.

they can be transferred to the *Reichsstelle Kohle*, which will use them under supervision of the Allied Coal Board.

2. Coal Syndicates.—The coal syndicates are the instruments through which German coal production—and indirectly—large segments of the German economy have been mobilized for economic and military aggression. (See pp. 9–15.) German disarmament will be possible only if the power of the coal syndicates is destroyed. The fact is, however, that incidental to their antisocial activities of power politics and monopoly control, the syndicates perform certain functions that must be continued under Military Government. Thus, they allocate orders (approved by the *Wirtschaftsämter*) among the mines, maintain accounting and collection services, and operate marketing organizations.²⁶

It is therefore recommended that all useful powers, functions, facilities, files, and acceptable personnel be transferred to the Allied Coal Board, or its Planning Office, Administrative Headquarters Staff, or Regional Mining Offices, as may be found appropriate. (See par. 33.) The personnel retained should be placed on probation and continued employment should depend on satisfactory performance and behavior. Such mining, transportation, and distributing enterprises as are now owned by the syndicates but operated as separate concerns should likewise be placed under direct control of the Allied Coal Board authorities. The syndicates *qua* syndicates should be dissolved, their charters should be canceled, and all persons now engaged in functions that are considered unnecessary or inimical to the Allied Military Government should be discharged.

Although this procedure will place effective control of coal production and distribution in the hands of the Allied authorities, reduce the likelihood of organized sabotage and resistance to the Allied administration, and crush the power of the syndicates, it will not place additional burdens on the Military Government. The syndicates will be eliminated as institutions of power politics, but those parts of their administrative machinery that are needed to facilitate the task of the Allied authorities will be left intact. Thus the nine syndicates headquarters offices will continue to serve as central points of contact with the mines and with the numerous large coal consumers and distributors. Experienced staffs will be retained and files and records will be available to facilitate the performance, in accordance with established procedure, of those functions which are to be retained under Military Government.

It is recommended that the change of authority be emphasized by conducting all business of the former syndicates in the name of the

²⁶ The U. S. Department of Justice, War Division Report of April 1, 1944, entitled *Some Considerations Affecting Post-War Control of Germany*, states that the coal syndicates provided the Nazis with their pattern for European political and economic domination. The report recommends their complete emasculation.

Allied Coal Board. Thus, letterheads, invoices, and other forms should be over stamped.

The syndicates have been financed by fees levied on their members, the producing companies. It is recommended that this system be continued and the monies so collected be deposited in the account of the Allied Coal Board. The system of fees and levies will require review, however, as part of the funds collected were intended for purposes other than those to be continued under the Allied Coal Board.

3. The Mining "Gruppen."—These, like the other *Wirtschafts-und Fachgruppen*, are compulsory organizations established by the Nazis as part of the system of the corporative state that was not completed at the time the war began. The great concentration of mine ownership, as well as the powerful position of the men in control of the coal industry, made the coal *Gruppen* of little importance except as key sections in the *Wirtschaftskammern* (Chamber of Commerce). Information is not definite on this point, but it is possible that they, like the other *Gruppen*, serve to some extent as claimants for the materials needed by their members, and allocate the supplies among them. On the other hand, the essential character of the coal industry, and the very large size of the enterprises make it seem improbable that the mine operators would bother with such a device, which is more suitable to procurement and distribution among small manufacturers. As the members of the *Gruppen* are the policy-makers who are being suspended from all control over the German mining industry, it would obviously be impossible to permit them to control the procurement and distribution of supplies among the mines being administered by the Military Government.

Each Allied Regional Mining Office will act as claimant for supplies for the region under its jurisdiction, and will of necessity be the claimant for the Reich mines. It is therefore recommended that if any *Gruppen* are found to have staffs performing supply distribution functions that are considered useful, they be separated from the *Gruppen*, placed under Allied control, and utilized for the work they have been doing, under the direction of the *Oberbergämter* or the *Revierbergämter*, which will be under Allied Coal Board control and supervision. These field offices of the Mines Bureau are in the best position to know which mines are in the most urgent need of supplies. Maladministration can be very soon discovered by Allied mine inspectors. After separation of any useful staffs from the *Gruppen*, the *Gruppen* should be dissolved. Staffs separated from the *Gruppen* could be supported by service fees chargeable to the accounts of the mines through the Allied Coal Board.

4. Nazi Professional Organizations.—The Nazis took over all existing professional organizations, made them compulsory, and organized them into a tight network. Thus, all electrical, mechanical, and min-

ing engineers of Germany and all mine superintendents belong to some section of the *Nationalsozialistischer Bund der Deutscher Technik*, probably either a *Fachgruppe Mechanische Technik* or the *Fachgruppe Bergbau*. These organizations perform no function whatsoever in connection with the coal industry and should immediately be abolished, since mines administered by the Allied Coal Board could not be under control of men subject to Nazi Party orders.

(Mere membership in these organizations should not be made grounds for dismissal; if such an order were issued, there would be no one to operate the mines. On the other hand, evidence of political activity in such an organization should be grounds for immediate suspension or removal.)

5. Nazi Political Organizations of the Mining Industry.—The following organizations should immediately be abolished and their records preserved with great care:

Verein für die Bergbaulichen Interessen.

Oberschlesischer Berg-und Hüttenmännischer Verein.

Deutscher Braunkohlen-industrie Verein.

These are former political pressure organizations of the coal industry that have been permitted to remain in existence because of their great services to the Nazi Party in its rise to power. Their dissolution is necessary, for they provide centers for the organization of resistance to the military occupation. All funds and properties in their possession should be sequestered.

6. Miscellaneous.—The *Pflichtgemeinschaft der Braunkohlen-industrie* is a compulsory organization of the brown-coal industry to force the producers, especially the small ones, to pool part of their profits to construct plants for the manufacture of liquid fuel from brown coal. The organization has no other function and that one can hardly be exercised under the Allied occupation. It is recommended that the property and assets of the association be sequestered. The association itself should be kept under surveillance to prevent its becoming a center of resistance under leadership of the chemical industry, which is highly influential in the brown-coal-mining field.

G. Administration of the Coal Mines.

1. The large scale of the German coal-mining operations, the completeness of the planning and operational organization at most of the mines as a result of combine ownership, and the high degree of responsibility for operations placed on the superintendents, make it quite feasible for the Military Government to dispense with existing boards of management and boards of directors and to supervise, and

if necessary, administer the mines directly.²⁷ The proposed method is quite similar to that under which the Reich mines of the Saar are operated, with the *Oberberghauptmann* of the *Oberbergamt* at Saarbrücken as the authority next above the superintendents.

As far as possible, the mine organization under the superintendents should remain unchanged and there should be as little interference with methods of operation and with the mine staffs as is compatible with military safety and the policy of the United Nations.

2. Under the proposed plan of operations, the supervision of the mines will be maintained primarily through Allied mine inspectors attached to the Allied Regional Mining Office, and secondarily through German inspectors attached to the *Revierbergämter*; these also will be under direct Allied Coal Board supervision and responsible for enforcement of Allied Coal Board rules and regulations. The Allied mine inspectors should not, however, place unlimited trust in the German inspectors; in the past there has been some collusion between them and the superintendents of the large mines and more can be expected under military government. The Allied inspectors should personally confirm all reports of the German inspectors on the reasons for declines in output and be constantly on the alert for secret shipments from the combine-owned mines to the plants of the corporations.

3. It may become necessary to have some of the Allied troops assigned to the duty of checking all shipments from the more important mines, to prevent unauthorized deliveries and the diversion of coal to uses the Allied Coal Board desires to prevent.

H. Personnel Relations.

1. As far as German operational staffs are concerned, the recommendations in this guide leave them largely untouched as long as the employees are not active Nazis and do not attempt to evade or sabotage the directives of the Allied Coal Board.

It is especially important that appointments within organizations, both official and private, be made by promotion whenever possible. This is a long-established German practice and deviations from it would arouse wide resentment. It is especially desirable that eligible members of staff who have been passed over in favor of Nazis be promoted whenever possible.

The number of assistant superintendents in each of the larger mines will make it easy to promote competent men to the chief post of responsibility in cases where it may be necessary to suspend or remove the general superintendent.

²⁷ See chart in Appendix showing organization under the mining superintendents; also part IV of this guide, section on management of mining operations; and *Guide to Technical Operations*, prepared by the Quartermaster Corps, Solid Fuels Division, U. S. Army.

2. It is recommended that as long as other eligible persons are available no person be employed in any agency or organization under administration of the Allied Coal Board who has been in any of the conquered areas in a supervisory or administrative capacity.

3. None of the persons suspended or removed from agencies and organizations under supervision of the Allied Coal Board should be employed in any capacity by the Military Government. There should be special alertness to discover persons in organizations under jurisdiction of the Allied Coal Board who are attempting to protect the interests of the policy-makers who have been removed.²⁸

4. In order to democratize labor relations and win the needed cooperation of the workers for the Allied production program, employees should have the right to self-organization, to form, join, or assist labor organizations, to bargain collectively through representatives of their own choosing, and to engage in concerted activity for the purpose of collective bargaining or other mutual aid or protection. Since it is urgent that employee organizations be formed as quickly as possible, it is suggested that workers of each crew be permitted to meet without delay and elect a representative with use of the secret ballot. No supervisory or administrative personnel of the mines should be present at these elections. Permission should be given to hold these meetings on mine property if other more suitable places are not available for any reason.

No person who has been identified as an active Nazi by the Allied authorities should be permitted to hold office in any employee organization.²⁹

5. A representative of the Regional Mining Office of the Allied Coal Board, together with an Allied officer familiar with labor relations, should arrange to meet with the workers' committee as soon as possible. He should explain the program of operation as it concerns them and assure and inform them of measures being taken to protect their rights and interests. For the sake of uniform practices, the Regional Office should not agree to changes in working conditions without obtaining the approval of the Allied Coal Board.

6. Foreign workers, many of whom are war prisoners or have been sent into the German pits under Nazi coercion, should be freed from restraint by German authorities and treated in accordance with instructions in C. A. D. Guide: *Repatriation and Care of Foreign Workers*.

²⁸ At the time of the occupation many persons prominent in corporation managements and directorates will undoubtedly be in neutral countries. From these points they may try to save their power through pressure from their financial and cartel colleagues in such neutral and other countries. Their agents in Germany may be expected in unusual as well as obvious places. The agents may be little-known men, in some cases engineers and technicians. Some may appear with fully authenticated records as political or religious refugees. A few may come out of concentration camps. Others may have or claim the support of prominent persons in the United Nations.

²⁹ See CAD Guide: *Labor Relations in Germany*.

Those who choose to remain in Germany should, of course, be put on an equal footing with German workers in regard to food and clothing rations, compensation, and so on.

7. German miners who are in the Army, serving in economic labor battalions or in the fighting branches, should be demobilized and sent to the German mines as soon as possible.

8. If the mines in liberated countries are badly wrecked, it may be possible to recruit some mining engineers from such countries to assist the Allied mine supervision in Germany. Under the same conditions and with a shortage of skilled mine labor in Germany, it may be desirable to have the affected countries send in volunteer crews of miners with their own foremen to work certain seams in the German mines. Such an arrangement would benefit the countries sending in the labor by keeping crews intact for the time when their own mines are again in working condition. The crews themselves would benefit since they might otherwise be unemployed. If such arrangements are made, the volunteer crews should be guaranteed adequate housing and maintenance, payment of wages at least equal to those obtaining in their own countries, and retention of any social security rights to which they are entitled.

I. Assumption of Control.

1. It is recommended that the Allied Coal Board and its staffs be organized in advance of the military occupation of Germany; that the headquarters of the Board be in Berlin (or whatever city becomes the seat of military government); and that some officers of its Planning Office and Headquarters Administrative Staff be stationed at the *Reichsstelle Kohle* and the Reich Mines Bureau, in order to keep their staffs under constant supervision.³⁰ The *Oberbergämster* should be the headquarters of the Board's Regional Mining Offices.

While nine Allied Coal Board Regional Offices are indicated on the organizational chart in this guide, it is feasible, and possibly expedient, to reduce the number to five or six field offices, especially if other types of mining are not placed under supervision of the production section of the Allied Coal Board. The *Oberbergamt* at Karlsruhe is of no importance from the coal standpoint. The proximity of the three important coal-mining districts of western Germany (each of which has its own *Oberbergamt*—Dortmund, Bonn, and Saarbrücken), and

³⁰ While, from the Allied viewpoint, coal is much the most important mineral mined under the regulations and supervision of the Mines Bureau and its field offices, there are others. It may therefore be desirable to have supervision of all mineral mining placed under control of the Allied Coal Board. This would enable the Board to transfer workers and machinery from certain unessential mining operations to coal mining, if it were considered advisable.

the marketing of all *Steinkohle* from these three districts through a single organization, make it possible to administer all three areas from one Allied Regional Mining Office. This office would be at Dortmund in the Ruhr. Saarbrücken and Bonn could be made suboffices, to be supervised from the Dortmund main office.

Except in Bavaria, the headquarters of the syndicate marketing the coal of a region is not in the same city as the *Oberbergamt* of the mining region, but in all cases is in a city nearby. If it is impractical to move to the Allied Regional Mining Office those sections of the former coal syndicate staff selected to work under the Allied Regional Distribution Officer, it will be necessary for such officers to be stationed in the cities that were formerly the headquarters of the syndicates.

Should a single main Allied Regional Mining Office be established to supervise the Aachen, Ruhr, and Saar *Steinkohle* and the Rhine brown coal mining, it will have under its jurisdiction two highly important sales headquarters—those of the dissolved *Rheinisch-Westfälisches* and *Rheinisch-Braunkohlen* syndicates. Centralization of the supervision in the region near the Rhine will not change the total number of officers needed by the Allied Coal Board but may somewhat alter the composition of the staff indicated in the chart in the Appendix, which represents the needs of the average regional office.

2. Immediately after taking over control of the Reich Mines Bureau and the *Reichsstelle Kohle*, the Allied Coal Board should notify the *Oberbergämter* and the *Revierbergämter* that they are to operate under its direction it should also notify the rationing offices of the regional and local *Wirtschaftsämter* that henceforth they will ration coal in accordance with the programs and directives of the Board.

It is recommended that immediately after the officer in charge of an Allied Regional Mining Office arrives at the *Oberbergamt* to which he is assigned he—

a. Suspend the *Oberberghauptmann* and any other members of the regional and local staffs whose records show that they are purely Nazi appointees. All remaining personnel should be kept under surveillance.

b. Summon the top-ranking officials and inspectors then remaining in the *Oberbergamt* and *Revierbergämter* and read, or have read to them, a prepared statement including:

Announcement of the change of authority;

Announcement of such parts of the production and allocation program as affect their responsibilities;

Offer of an opportunity for them to resign if they are unwilling to accept the change in authority and to follow orders of the Allied Coal Board;

Statement of the penalty (imprisonment) for any one who remains in the service and fails to follow orders or attempts to evade, or aid others in evading, instructions.

c. Next, summon to the *Oberbergamt* all general and assistant superintendents of mines within the region ³¹ and read or have read to them a prepared statement including:

Announcement that henceforth all mines are to be operated under control of the Allied Coal Board;

Announcement that the superintendents will derive their operational authority from the Allied Coal Board alone and be immediately responsible to its regional officer;

Announcement that the directorates and managements of the mining companies have been suspended and have no further authority over the mines and operations;

Offer of an opportunity to resign if the superintendents are unwilling to accept the change in authority and to follow the Board's instructions;

Statement of the penalty (imprisonment) for anyone who remains in his position and evades or fails to follow the instructions of the Board, or who consults with the members of the former managements and directorates, their representatives, or other representatives of the mining companies, in connection with instructions issued by the Board or on any other matters touching mine operations and deliveries from the mines.

The offer of an opportunity to resign is necessary. The superintendent who is unwilling to accept the Board's authority would be useless to the military authorities. Failure to resign when the opportunity is offered will clearly place responsibility on the man who fails to follow orders. It is not anticipated that there will be many resignations with unemployment mounting rapidly in the country, and engineers who have been in conquered countries attempting to find jobs. Immediate action on the first resignation offered will cause other men to reconsider their attitudes.

3. It is recommended that the change in authority over mining operations be published in the papers and over the radio so that all mine employees and other persons having anything to do with the mines are fully informed of the conditions under which the mines are being operated. Such publicity may provide some check on the performance of the mine superintendents, for persons unsympathetic to

³¹ Except, of course, those who have also been sitting on the *Vorstand* or *Aufsichtsrat* of a mining company or acting as business manager—*Wirtschaftsführer*—and are therefore ineligible for any position under the Allied Authorities.

the former Nazi managements may report acts contrary to the published orders and intentions of the Board.

4. As soon as possible the superintendents remaining on the jobs, and men appointed to the positions, should be authorized, or have their authority renewed, to sign checks in payment for routine expenditures, and to make cash withdrawals from the banks for pay roll and other needs. No extraordinary expenditures should be permitted without the countersignature of the appropriate officer of the Allied Coal Board Regional Staff. In no case should payments or transfers of funds be made, directly or indirectly, to parent or affiliated companies, associations, or syndicates, or any representative thereof, pending determination of complicated property relationships, reparations, and other legal and international problems. The depositories of the funds of the various mines should be notified accordingly.

J. Control Through Coal Distribution.

1. The principal function of the Allied Coal Board should be to see that the allocation and distribution of coal are executed in conformity with Allied policies handed down to it. Control of production is essential to this function, but subordinate to it.

2. The Distribution Officer of each Allied Regional Mining Office should be responsible for—

a. Checking all orders from the consuming districts against the programs and the consuming-region allotments authorized by the Allied Coal Board, distributing the orders among the mines, coking plants, and briquetting plants, and collecting payment for deliveries, to be deposited in the accounts of the Board;

b. Counterchecking all orders for plants that are on a watch-list established by the Allied Coal Board and other agencies of the military government;

c. Maintaining constant vigilance to discover forged orders, discrepancies between authorized shipments and the reports of shipments made from the mines, and other evidences of attempts to evade the control of the Allied Coal Board.

3. No order for delivery of coal should be permitted to go directly to a mine without passing through an Allied Regional Distributing Office. In the past, certain consumers, including some with ownership interests in the mining companies, have dealt directly with the mines and enjoyed special privileges. Some mines have maintained so-called old-customer lists. Mine relations with such old customers and with industries having ownership interests in the mines should be carefully watched.

4. It is recommended that invoices for all coal shipments from the mines to industrial consumers and wholesalers be issued in the name of the Allied Coal Board, and that payments be made to the Allied Coal

Board through the Allied Regional Distributing Office having jurisdiction over the mine from which each particular shipment originates. Copies of all invoices should be forwarded by the mines to the Allied Regional Office having jurisdiction over them, and the latter should maintain a system of accounts showing production, shipments, and billings by each mine under its jurisdiction, as well as the expenditures made by such mine for operational purposes.

5. It is recommended that in order to prevent diversion to unauthorized users, special attention be given to the use of coal at the mines. Coal allocated to mining operations should be confined to essential needs. Heretofore, not only superintendents and workers have been given free coal, but also in some cases managerial personnel, cartel employees, and others. Coal allowances should be strictly limited to the superintendents and persons working under their direction; and whenever any such person is removed from the mine staff his coal allowance should be stopped immediately.

6. It is recommended that all export deliveries be made from the larger mines, as far as feasible. Not only are these near the frontiers but such concentration will simplify problems of control, especially if it can be arranged that no German orders are placed with such mines. All large loadings should be watched and large shipments convoyed, in order to prevent surreptitious diversions.

7. The allocation of German coal, as between Germany and the liberated countries and as between the various consuming groups within Germany, will be the responsibility of the Allied Coal Board for Germany acting in collaboration with the European Coal Commission and any other United Nations agencies established to determine, recommend, or enforce Germany's obligation for reparation and restitution. The program of allocation adopted will have to be worked out in the light of the United Nations policies and also in the light of the physical factors found to obtain, such as the extent and nature of damage by military action or otherwise to the mines in Germany and elsewhere in Europe and to European industrial and transportation facilities in general, the types and quantities of relief and rehabilitation supplies needed by the liberated countries, and the Allied shipping situation. As far as possible, German needs should be met from brown coal and the output of *Steinkohle* should be reserved for exports. Table 4 in the appendix shows German consumption of coal by various classes of consumers in 1934 and estimates the consumption by these classes in 1943.

8. Pending the preparation of allocation programs by the Allied Coal Board, it is recommended that the Board immediately prohibit further coal deliveries to (a) all plants then engaged in manufacture for the German Army, Navy, or Air Force; and (b) all Nazi party organizations whatsoever. Many of these and other large-scale con-

sumers will have sizable coal stockpiles. These should be promptly seized and guarded, and kept for distribution (according to standards of allocation and rationing established by the Allied Coal Board) within the areas where they are found. For information regarding such stockpiles the files of the *Reichsstelle Kohle* and of the *Wirtschaftsämter*, as well as of the business offices of the consumers, should be promptly inspected.

9. No coal should be allocated for the manufacture of liquid fuel, a process that entails a great waste of potential energy. The decision to continue production of liquid fuels from coal depends on certain relationships among the total European coal supply, the Allied petroleum supply and the supply of ocean dry cargo and tanker shipping. The decision to continue production would, of course, entail a coal allocation that can be computed at the rate of 15 to 20 tons of brown coal for each ton of liquid fuel.

10. It is recommended that the supervision of coal rationing in the consuming centers be left to economic officers of other branches of the Military Government who will be supervising the rationing of clothing and certain other goods. Such officers should be kept informed of and follow the regulations and programs issued by the Allied Coal Board, be made familiar with the objectives of the Board's work, and promptly report violations by large consumers and wholesalers to the Allied officer in charge of the mining region supplying the coal.

This recommendation is based on the concentration of coal mining in a few relatively small areas covering together only a limited proportion of the total territory. Extension of the Board's functions to cover supervision of rationing at the consuming level would require a much larger staff than is contemplated in the proposals, and serve no useful purpose. The planning of allocations, and of rations for the various classes of consumers, and of the manner in which they shall be dispensed, should, however, be wholly a function of the Board and its subordinate organization.

11. It is recommended that responsibility for the operation of regional and local coal rationing remain with the *Wirtschaftsämter* (the field offices of the *Reichswirtschaftsministerium*, which perform various functions), subject to three major modifications of the system:

a. The coal rationing offices of the *Wirtschaftsämter* (as well as other sections of these agencies) should be cleared of Nazis and other persons who are likely to attempt to evade the rationing instructions.

b. The system of validating industrial coal orders only after approval by the *Fachgruppen* of the various industries, or by the *Wirtschaftskammern* should be discontinued. Such approval would serve no useful purpose under the Allied Military Government, for the industrial requirements will depend on the raw materials available and these will be distributed under Allied supervision. When

asking for validation of their orders, industrial consumers should, as in the past, declare their stocks of coal, and the quantity of basic materials at their disposal; they should also give proof of their past coal consumption in relation to the amount of materials at their disposal.

c. All consumers in certain categories to be determined by the Allied Coal Board (for example, manufacturers of explosives) and all major consumers (the size of consumption for this classification to be determined by the Allied Coal Board) should have their orders approved directly by the Allied economics officers in the region. The approval should, of course, be made in accordance with the regulations of the Allied Coal Board.

d. In order to provide the Allied Coal Board with information needed for planning and control, each *Wirtschaftsamt* should continue to make regular reports on the total quantities of coal for which orders have been validated, by consuming groups, and the quantities of coal received, as reported by wholesalers and others who receive supplies directly from the mines. Copies of these reports should also be sent to the Allied Distributing Office serving the region, to enable a check against orders received and the shipments reported by the mines. Maintenance of this double check will lessen the opportunities for collusion among German groups attempting to evade the controls.

K. MISCELLANEOUS RECOMMENDATIONS.

1. It is recommended that early attention be given to the problem of ensuring a steady flow of supplies needed for production, such as mine props, lubricants, repair parts, tools, explosives, and, possibly, new machines. While the Germans have been stock piling essential supplies of all kinds close to the points of consumption, these may have been used up before the Allied Coal Board takes over the control of production.

Every effort should be made to meet all requirements for supplies from within Germany. Because of the urgent need for coal, it is probable that some plants manufacturing mining machinery and parts have never been converted to other uses. If so, the names of the companies, their addresses, and the plant capacities will be known to the staffs of the *Oberbergämter*, as well as to staffs in other offices concerned with coal mining. Suitable explosives may be available from military stores. It is possible, however, there will be a shortage of lubricants that might have to be met by imports. During the war nearly all mine props have been imported to save manpower, but part of the requirements can be met in Germany.

It is probable that much of the mining machinery in Germany will be in poor condition and that extensive repairs and replacement will be necessary to achieve maximum output. At the same time,

there is likely to be a great demand by liberated countries for mining machinery. The problem of balancing these conflicting demands in such a way as to achieve the maximum European coal production must be solved by the European Coal Commission rather than by the Allied Coal Board for Germany.

2. It is recommended that consideration be given to the possibility of temporarily relaxing certain safety regulations on back-filling, use of some types of electrical equipment, and so on. It would be inadvisable to give general orders for departures from established rules, or to make any decision on the subject without an investigation of the specific mines to which the new regulation is to apply. In general, the German mining regulations are sound and their relaxation is justified only by the need for production. Due consideration must given to the possibility of later claims for damages resulting from such changes in the regulations.

Orders for any change in the regulations should be approved by the Allied Coal Board and transmitted to the mines through the *Oberbergämter*, which have regional responsibility for enforcement of the regulations.

Table 1
Steinkohle production in Germany
[In metric tons]

Mining region	1937	1938	Percentage of increase or decrease 1938
Ruhr-----	127, 751, 674	127, 283, 595	—0. 37
Aachen-----	7, 835, 286	7, 753, 647	—1. 04
Saar-----	13, 365, 240	14, 392, 908	+7. 69
Lower Saxony-----	1, 991, 405	1, 917, 976	—3. 69
Saxony-----	3, 693, 549	3, 449, 622	—6. 60
Upper Silesia-----	24, 481, 469	25, 983, 299	+6. 13
Lower Silesia-----	5, 311, 710	5, 307, 042	—0. 09
Rest of Germany-----	82, 460	90, 708	+10. 0
Total Germany-----	184, 512, 793	186, 178, 797	+0. 90

Brown coal production in Germany

Mining region	1937	1938	Percentage of increase or decrease 1938
Rhein Region-----	54, 879, 845	57, 590, 164	+4. 94
Central Germany:			
West of Elbe River-----	80, 739, 821	84, 534, 261	+4. 70
East of Elbe River-----	46, 289, 025	49, 898, 542	+7. 80
Bavaria-----	2, 727, 810	2, 877, 015	+5. 47
Rest of Germany-----	72, 262	76, 259	+8. 30
Total Germany-----	184, 708, 765	194, 978, 241	+5. 56

Table 2

Briquettes production in Germany from Steinkohle

Mining region	1937	1938	Percentage of increase or decrease 1938
Ruhr-----	4, 383, 002	4, 339, 786	-0. 99
Aachen-----	345, 086	326, 048	-5. 52
Lower Saxony-----	405, 972	443, 687	+9. 29
Saxony-----	147, 021	142, 987	-2. 74
Upper Silesia-----	273, 266	287, 915	+5. 36
Lower Silesia-----	73, 819	74, 757	+1. 27
Upper Rhein Region-----	597, 194	614, 983	+2. 98
West of Germany-----	560, 177	666, 989	+19. 07
Total Germany-----	6, 785, 537	6, 897, 152	+1. 65

Brown coal briquettes production in Germany

Mining region	1937	1938	Percentage of increase in 1938
Rhein Region-----	11, 785, 027	11, 963, 544	+1. 51
Central Germany:			
West of Elbe River-----	18, 488, 418	19, 385, 869	+5. 08
East of Elbe River-----	11, 652, 128	12, 478, 087	+7. 09
Bavaria-----	155, 593	169, 392	+8. 87
Total Germany-----	42, 041, 166	43, 996, 892	+4. 68

Table 3

Coke production in Germany from Steinkohle

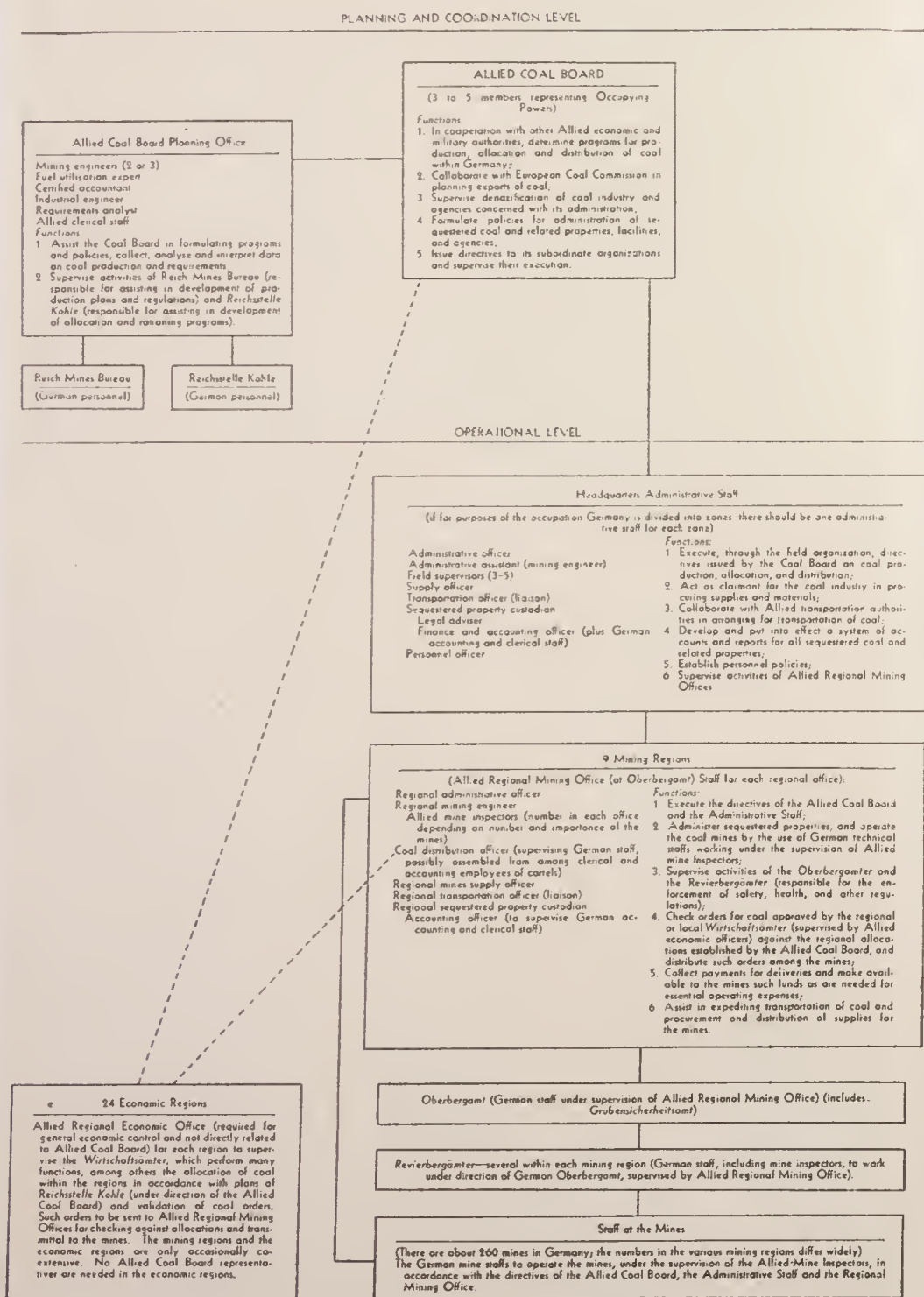
Mining region	1937	1938	Percentage of increase or decrease, 1938
Ruhr-----	31, 566, 474	33, 634, 241	+6. 55
Aachen-----	1, 336, 123	1, 432, 905	+7. 24
Saar-----	2, 846, 219	3, 107, 670	+9. 19
Saxony-----	306, 091	278, 799	-8. 92
Upper Silesia-----	1, 935, 556	2, 005, 519	+3. 61
Lower Silesia-----	1, 301, 396	1, 368, 521	+5. 16
Rest of Germany-----	1, 606, 943	1, 674, 945	+4. 23
Total Germany-----	40, 898, 802	43, 502, 600	+6. 39

Coke production in Germany from brown coal

Mining region	1937	1938	Percentage of increase in 1938
Central Germany West of Elbe River---	3, 010, 388	3, 273, 233	+8. 73

Chart 1

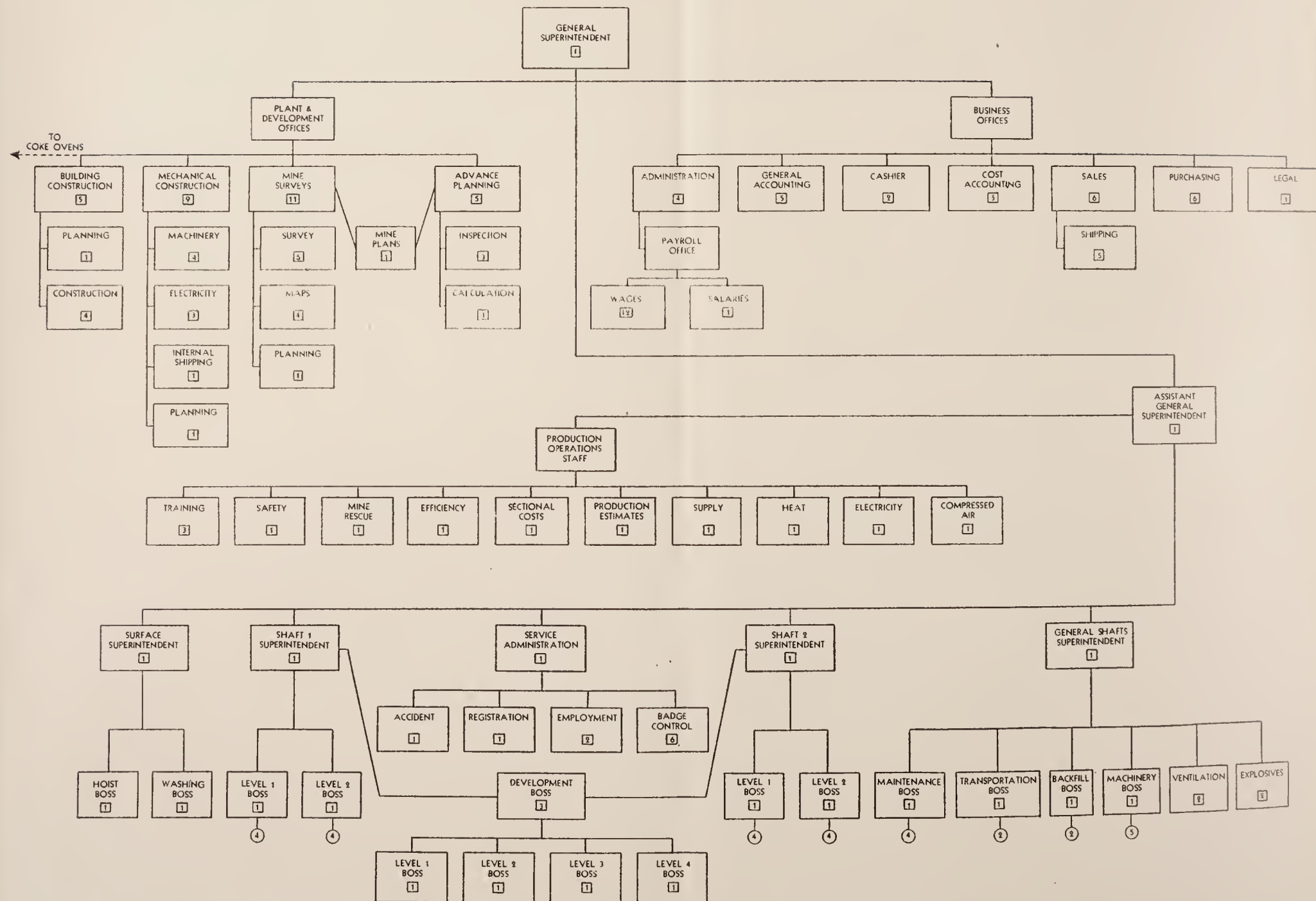
ALLIED COAL BOARD FOR GERMANY AND ITS FUNCTIONS



Estimated total Allied staff for coal administration, 200-250

Chart 2

Typical organization of German coal mine [TWO MILLION TON ANNUAL CAPACITY]

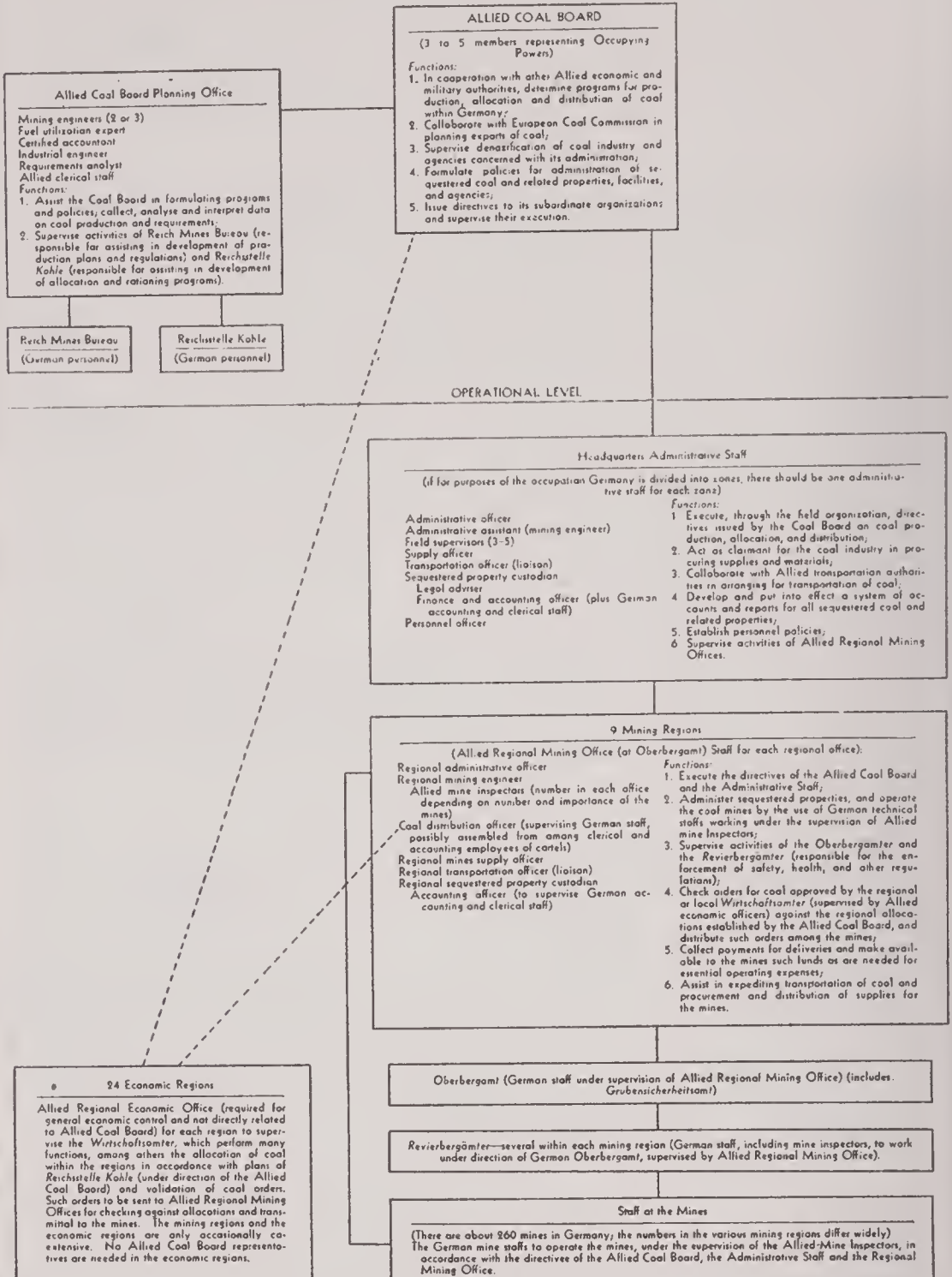


NOTE FIGURES IN BOXES REFER TO NUMBER OF SUPERVISORY PERSONNEL IN EACH CATEGORY.
FIGURES IN CIRCLES REFER TO NUMBER OF FOREMEN. EACH FOREMAN IS RESPONSIBLE FOR UP TO 50 MEN.

Chart 1

ALLIED COAL BOARD FOR GERMANY AND ITS FUNCTIONS

PLANNING AND COORDINATION LEVEL



Estimated total Allied staff for coal administration, 200-250.

Table 4

Consumption of coal in Germany in 1934 and estimated consumption in 1943,
by consumer classes

[000 metric tons] ¹

	Consumption	
	1934	1943 (estimated)
Retail market ²	36, 831	22, 000
Railroads.....	12, 727	18, 500
Inland waterway and coastal carriers.....	2, 791	5, 000
Waterworks.....	269	250
Gasworks.....	6, 057	8, 000
Electric power (public plants).....	9, 341	28, 500
Metal mining, refining and fabricating.....	20, 657	55, 000
Chemical manufacture.....	6, 060	7, 000
Synthetic petroleum.....	³ 0	23, 000
Glass and porcelain ⁴	1, 707	2, 250
Stone and clay products.....	5, 544	6, 700
Textiles.....	4, 042	3, 000
Paper, cellulose and artificial fibers.....	3, 618	5, 700
Potash and salt.....	735	2, 500
Food processing.....	4, 421	5, 000
Miscellaneous industrial uses.....	4, 575	6, 800
Total ⁵	119, 375	197, 000

¹ Consumption of brown coal, coke, and briquettes has been converted to the equivalent in *Steinkohle* and added to the *Steinkohle* consumptions. Totals do not include coal used at the mines and distributed to mining personnel.

² Includes households, apartment houses, hotels, stores, public buildings, institutions and the small manufacturing enterprises not covered elsewhere. Fuel used for agricultural purposes, especially for steam-driven machinery, is also included.

³ The small quantity used for this purpose in 1934 was included in the total for chemicals.

⁴ Includes manufacture of bricks and cement.

⁵ To the total for 1934 should be added about 30 million tons of coal used at the mines, and to the 1943 total about 23.9 million. In 1934 the German industrial production index stood at 76.7 against a base of 100 in 1925.

APPENDIX

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS ^a

Name	Position	Enterprise
Ahs, Hermann J.	MDir CBD VPBD	Deutsche Bank, Berlin. Adler & Oppenheimer AG., Berlin. Bergwerksgesellschaft Dahlhusch, Gelsenkirchen. Deutsch-Übersesische Bank, Berlin. Philipp Holzmann AG., Frankfurt/Main. Kreditbank, Sofia. Schlesische Bergwerks- und Hütten AG., Beuthen. Vereinigte Glanzstoff-Fabriken AG., Alberfeld. Creditanstalt-Bankverein, Wien.

* This list, which names some of the men outstanding in control of German coal, is representative but not complete. The information on affiliations, with a few minor exceptions, was taken from *Wer Leitet?*, published February 1940, with a foreword by the director of the press section of the *Reichswirtschaftsministerium* and Reichsbank. The foreword explains that "the new philosophy of economic (industrial) administration demanded * * * new men for the coordination and solution of the gigantic tasks of the new (National Socialist) economy." It goes on to say that "in thought and action, the new economic leader must start from quite different premises from those of his predecessor of the era of industrial infancy and liberal capitalism. Since the men named in *Wer Leitet?* 'have pushed out the old style economic leaders,' it must be assumed that all who are included in the book are Nazis or acceptable to the Nazis.

A secondary source of information was the 6-volume *Handbuch der Deutschen Aktiengesellschaften* (1940).

It will be noted that the affiliations listed here are all as of early 1940—i. e.: for a time when the industrial and military conquest of Europe was in its initial stage. Later editions of the source publications should be consulted to discover the extent to which the men named (as well as others) have participated in the pillage of Europe. The publications should be available in Switzerland, if they have been destroyed within Germany.

In only a few cases do the listings indicate Nazi Party membership; a considerable number of the persons named are, however, Party members.

Key

AC	Member of administrative council.
BM	Business manager.
C	Chairman.
CBD	Chairman of the board of directors.
CBM	Chairman of the board of management.
Con	Consultant or councillor.
COS	Chief office supervisor or office director.
DC	Deputy (or vice) chairman.
DCBD	Deputy chairman of the board of directors.
DCBM	Deputy chairman of the board of management.
DirG	Director-General.
DMBM	Deputy member of the board of management.
DMDir	Deputy managing director or deputy member of the board of management.
DS	Deputy supervisor or director.
GauBM	Gau business manager or office director (Nazi).
GMDir	Mine managing director or member of mine board of management (used chiefly in connection with mining companies that are partnerships).
M	Member.
MBD	Member of the board of directors.
MBM	Member of the board of management.
MDir	Member of the board of management, or managing director.
P	President.
Part	Partner.
P-BD	President of the board of directors, or of the advisory council.
S	Supervisor or director (usually of a section or <i>Gruppe</i>).
SPart	Senior partner.
VP	Vice president.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Abs, Hermann J.—Continued.	DCBD	Aecumulatorenfabrik AG., Berlin-Hagen. Deutsche Asiatische Bank, Shanghai-Berlin. Portland-Cementwerke Heidelberg AG., Heidelberg. Zeiss Ikon AG., Dresden.
	MBD	Allgemeiner Jugoslawischer Bankverein, Belgrad. Aschaffenburg Zellstoffwerke AG., Berlin. British and German Trust Ltd., London. Compania Hispano-Americana de Electricidad, Madrid. Deutsche Libbey-Owens Gesellschaft für maschinelle Glasherstellung AG. (Delog), Gelsenkirchen. Deutsche Waffen- und Munitionsfabriken AG., Berlin. Dyckerhoff Portland-Zementwerke AG., Amöneburg. Handel-Maatschappij J. Albert de Bary & Co., N. V. Amsterdam. Industriefinanzierungs AG., Ost, Berlin. Rudolph Karstadt AG., Berlin. "Kopa" AG., Berlin. Metallgesellschaft AG., Frankfurt/Main. Neunkircher Eisenwerk AG., vorm Gebr. Stumm, Neunkirchen/Saar. Rheinisch-Westfälische Boden-Credit-Bank, Köln. Rheinisch-Westfälisches Elektrizitätswerk AG., Essen. Gebrüder Stumm GmbH., Neunkirchen/Saar.
	Ccn	Deutsche Reichsbank, Berlin. Walther & Cie. AG., Köln.
	M	Russland-Ausschuss der Deutschen Wirtschaft. Siebener Ausschuss der Deutschen Golddiskontbank, Berlin. Währungsausschuss bei der Deutschen Reichsbank, Berlin.
	CBD	Hubertus Brauerei AG., Köln. Hubertus Braunkohlen AG., Brüggen/Erft bei Liblar. Kölner Union Brauerei AG., Köln.
	DCBD	Wessels Wandplatten-Fabrik AG., Bonn.
	MPD	Aecumulatorenfabrik AG., Berlin. Braunkohlen- & Brikettwerke Roddergrube AG., Brühl/Rhein. Phönix AG. für Braunkohlenverwertung, Mumsdorf. Rheinisches Braunkohlensyndikat GmbH., Köln. Vereinigte Deutsche Metallwerke AG., Frankfurt/Main. Hubert Zettelmeier AG., Konz bei Trier.
	GMDir	Gewerkshaft Hürtherner, Hermühlheim.
	MDir	Vereinigte Holzindustrie AG. für Holzhandel, Gleiwitz.
	Dir	Graf v. Ballestrem'sche Güterdirektion Abtlg. Fortinspektion.
	MBD	Gelände- und Bau AG., Breslau.
	Con	Rudaer Steinkohlengewerkshaft, Ruda/O. S.
	CBD	Oberschlesische Eisenbahn-Bedarfs-AG., Gleiwitz Vereinigte Holzindustrie AG., Gleiwitz.
	DCBD	Friedenshütte AG., Kattowitz.
	MBD	Las AG., Ruda/Oberschlesien. Vereinigte Oberschlesische Hüttenwerke AG., Gleiwitz.
	Con	Rudaer Steinkohlen-Gewerkshaft, Ruda/O. S.
	M	Schlesischer Beirat der Deutschen Bank, Berlin.
	CBD	Gewerkshaft "Coneordia" bei Nachterstedt A. Riebeck'sche Montanwerke AG., Halle/Saale.
	MBD	August Thyssen-Hütte AG., Duisburg-Hamborn.
	CBM	Brandeisenwalzwerke AG., Dinslaken.
Bansi, Ernst, Oberbürgermeister i. R.	MBD	Boehumer Verein für Guss-stahlfabrikation AG., Bochum.
	CBM	Deutsche Röhrenwerke AG., Düsseldorf.
Bartscherer, Franz, Hüttendirektor, Dr.-Ing. e. h.	MBD	Dortmund-Hörder Hüttenverein AG., Dortmund.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Bartscherer, Franz, Hüttendirektor, Dr. Ing. e. h.—Continued.	MBD	Hüttenwerke Siegerland AG., Siegen. Rheinische Wohnstätten AG., Duisburg-Hamborn. Silika- u. Schamottefabriken Martin & Pagenstecher AG., Köln-Mülheim. Westdeutsch Wohnhäuser AG., Düsseldorf. Westfälische Union AG. für Eisen- und Drahtindustrie, Hamm/Westf.
Becker, Arthur.....	DMDir	Kokswerke und Chemische Fabriken AG., Berlin.
Becker, Paul, Bergassessor a.D....	DirG	Eschweiler Bergwerks-Verein AG., Kohlscheid.
	CBMG	Gewerkschaft Carl-Friedrich, Richterich bei Aachen.
	CBD	Anthrazitgrube Carl Friedrich AG., für Bergbau und verwandte Industrien, Richterich bei Aachen.
	MBD	Braunkohlen-Industrie AG., Zukunft, Weisweiler. Brohlthal AG., für Stein- und Tonindustrie. Burgbrohl. Gesellschaft für Teerverwertung mgH., Duisburg. Rheinisch-Westfälisches Kohlen-Syndikat, Essen. Rheinisch-Westfälische Sprengstoff AG., Nürnberg.
Berckemeyer, Hans, Dr. Jr., Dr.-Ing. e.h.	Con	Wirtschaftsgruppe Bergbau.
	CBD	Alpine Chemische AG., Kufstein-Schaftenau. Benzol-Vereinigung des Ostens GmbH., Berlin. Borsig-Kokswerke AG., Hindenburg-Borsigwerk/O.S. Concordia Bergbau AG., Oberhausen/Rheinland. Duco AG., Berlin-Spindlersfeld. Hedwigshütte AG., Stettin. Katag AG., Berlin-Bielefeld. Carl Koethen GmbH., Greiffenberg/SchlesWen. Kokswerke & Chemische Fabriken AG., Berlin. Niederschlesische Bergbau AG., Waldenburg/Schles. Teerprodukten-Vereinigung des Ostens GmbH., Berlin.
	DCBD	Berliner Handels-Gesellschaft, Berlin. Pfeilring-Werke AG., Berlin-Charlottenburg. Voigtländer & Sohn AG., Braunschweig.
	MBD	"Montania" Handelsgesellschaft für Kohle, Koks und Nebenprodukte mbH., Berlin. Reichskraftsprit GmbH., Berlin. W. Spindler AG., Berlin-Spindlersfeld. Stickstoffsyndikat GmbH., Berlin. Westfälisch-Anhaltische Sprengstoffwerke AG., Berlin.
Berk, Cornel.....	BM	Jacob Kalscheuer & Cie. GmbH., Frechen bei Köln.
	DCBD	H. Fuchs Waggon-Fabrik AG., Heidelberg. Vereinigte Westdeutsche Waggonfabriken AG., Köln-Deutz. Zuckerfabrik Brühl AG., Köln-Brühl.
	MBD	Bergbahnen im Siebengebirge AG., Königswinter. Rheinische AG., für Braunkohlenbergbau und Brikettfabrikation, Köln.
Berthold, Max.....	MDir	Van der Zypen & Charlier GmbH., Köln-Deutz. Siemens-Rheinische-Schuckert-Union GmbH., Berlin. Siemens-Schuckertwerke AG., Berlin-Siemensstadt.
	CBD	Belton-Schleuderwerke AG., Erlangen. Kraftwerk Thüringen AG., in Gispersleben/Thür. Thüringische Elektrizitäts- und Gaswerke AG., Apolda.
	DCBD	Bergische Elektrizitäts-Versorgung-GmbH., Wuppertal-Elberfeld. Fränkisches Ueberlandwerk AG., Nürnberg. Wolfram Lampen AG., Augsburg.
	MBD	Bayerische Handelsbank Bodenkreditanstalt, München. Bayerische Vereinsbank, München. Elektrische Licht- und Kraftanlagen AG., Berlin. Elektrowerke AG., Berlin. Gelsenkirchener Bergwerks AG., Essen.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Berthold, Max—Continued.	MBD	Rheninische Elektrizitäts-AG., Mannheim. Thüringenwerk AG., Weimar. Thüringer Gasversorgungs-GmbH., Arnstadt. Vereinsbank Nürnberg, Nürnberg. Vereinigte Bayerische Telephonwerke AG., München. Wasserversorgung Weimar GmbH., Weimar. Zentralgaswerk Arnstadt GmbH., Arnstadt.
von Bethmann, Freiherr Moritz, Bankier, Kgl. schwedischer Ge- neralkonsul.	O	Bankhaus Gebr. Bethmann, Frankfurt/Main.
	CBD	Emil Bandell AG., Stuttgart. Frankfurter Bank, Frankfurt/Main. Matheus Müller KG. a.A., Eltville.
	DCBD	Buntpapierfabrik AG., Aschaffenburg. Deutsche Dunlop Gummi-Compagnie AG., Hanau. Frankfurter Hof AG., Frankfurt/Main. Frankfurter Hypothekenbank, Frankfurt/Main.
	MBD	Aktienbrauerei zum Löwenbrau, München. Deutsche Gold- und Silber-Scheideanstalt, vorm. Roessler, Frankfurt/Main. A. Riebeck'sche Montanwerke AG., Halle/Saale. Ueberlandwerk Mainfranken AG., Würzburg.
	P	Börse zu Frankfurt/Main.
	MDir	Niederschlesische Bergbau AG., Neu-Weissstein.
	CBM	Niederschlesisches Steinkohlen-Syndikat, Waldenburg/ Schlesien. Schlesische Motorwagon AG., Waldenburg/Schlesien. AG. Reichskohlenverband, Berlin. Benzolvereinigung des Ostens GmbH., Berlin. Borsig-Kokswerke AG., Hindenburg-Borsigwerk/O. S. Schering AG., Berlin.
	Con	Wirtschaftsgruppe Bergbau.
	M	Schlesischer Beirat der Deutschen Bank, Berlin.
	CBM	Bochumer Verein für Gussstahlfabrikation AG., Bochum. Hanomag Hannoversche Maschinenbau AG. vormals Georg Egestorff, Hannover.
Borbet, Walter, Dr.-Ing. e. h.-----	MDir	Ruhrstahl AG., Witten.
	MBD	Bayerische Motoren-Werke AG., München. Deutsche Edelstahlwerke AG., Krefeld. Deutsche Eisenwerke AG., Mülheim/Ruhr. Dortmund-Hörder Hüttenverein AG., Dortmund. Nordstern Allgemeine Versicherungs-AG., Berlin. Rheinisch-Westfälische Werkwohnungs-AG., Essen. Schwerter Profileisen Walzwerk AG., Schwerte. Seerederei "Frigga" AG., Hamburg. Silika- und Schamotte-Fabriken Martin & Pagenstecher AG., Köln-Mülheim. August Thyssen-Hütte AG., Duisburg-Hamborn. "Wehag"—Westdeutsche Haushaltversorgung AG., Essen.
	MBD	Westdeutsche Wohnhäuser AG., Essen.
	Con	Henschel & Sohn GmbH., Kassel. Kettenwerke Schlieper GmbH., Grüne/Westf. Kleineisen- und Schraubenfabrik GmbH., Essen-Steele. Norddeutsche Maschinenfabrik GmbH., Mülheim/Ruhr. Sterchamolwerke GmbH., Dortmund. Wagner & Co. GmbH., Düsseldorf. Walzenkontor GmbH., Düsseldorf. Westdeutsche Bandisenkontor GmbH., Mülheim/Ruhr.
	MBM	Wigru, Eisenschaffende Industrie. Schering AG., Berlin. Kokwerke & Chemische Fabriken AG., Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Borner, Wilhelm, Dr. jur.—Con.	DCBD	DUCO Aktiengesellschaft, Berlin-Spindlersfeld. Niederschlesische Bergbau-AG., Neu Weiss-stein. Pfeilring-Werke AG., Berlin.
	MBD	Alpine Chemische AG., Kufstein-Schaftenau/Tirol. Borsig-Kokswerke AG., Hindenburg O/S. Concordia Bergbau-AG., Oberhausen/Rhld.
von Borsig, Albert, Dr.	M	Berlin-Brandenburger Beirat der Deutschen Bank, Berlin.
von Borsig, Arnold, Dipl.-Ing.	MBD	Borsig-Kokswerke AG., Hindenburg-Borsigwerk.
von Borsig, Conrad, Geheimer Kommerzienrat, Dr.-Ing. e. h.	MBD	Borsig-Kokswerke AG., Hindenburg-Borsigwerk.
	DCBD	Borsig-Kokswerke AG., Hindenburg-Borsigwerk.
	MBD	Eisenbahn-Verkehrsmittel-AG., Berlin Ilse. Bergbau AG., Grube Ilse N.-L. Niederrheinische Bergwerks AG., Waldenburg. Rheinmetall-Borsig AG., Berlin. Schering AG., Berlin.
von Borsig, Ernst, Dr.	MBD	Borsig-Kokswerke AG., Hindenburg-Borsigwerk
Bosch, Carl, Geh. Kommerzienrat, Professor, Dr. phil., Dr.-Ing. e. h., Dr. d. Landw. e. h., Dr. d. techn. Wissenschaft e. h., Dr. d. Naturwiss. e. h., Wehrwirtschafts- führer.	BM	Ammoniakwerk Merseburg GmbH., Merseburg.
	CBD	Duisburger Kupferhütte, Duisburg.
	DCBD	I. G. Farbenindustrie AG., Frankfurt/Main.
	MBD	Ford Motor Company AG., Köln-Niehl. Deutsche Gold-und Silber-Scheideanstalt vorm. Roessler, Frankfurt/Main. Dynamit AG. vormals Alfred Nobel & Co., Troisdorf. Friedrich Krupp AG., Essen Ruhr. Metallgesellschaft AG., Frankfurt/Main. Rheinmetall-Borsig AG., Berlin. Vereinigte Aluminium-Werke AG., Berlin Stickstoff- Syndikat GmbH., Berlin.
Brecht, Gustav, Geheimer Regie- rungsrat, Wehrwirtschafts- führer.	CBM	Rheinische AG. für Braunkohlenbergbau und Brikett- fabrikation, Köln.
	CBD	Rheinische Braunkohlen-Syndikat GmbH., Köln. Rheinische Braunkohlentiefbaugesellschaft mbH., Köln. Union Rheinische Braunkohlen Kraftstoff AG., Köln.
	DCBD	Braunkohle-Benzin AG., Berlin.
	MBD	Allianz und Stuttgarter Lebensversicherungsbank AG., Berlin.
	MBD	Braunkohlen-Industrie AG., "Zukunft," Eschweiler. Braunkohlen- und Briketwerke Roddergrube AG. Felton & Guillaume Carlswerk AG., Köln-Mülheim. Harpener Bergbau AG., Dortmund. Kölnische Glasverischerungs-AG., Köln. Maschinenfabrik Buckau R. Wolf AG., Magdeburg.
	DS	Wirtschaftsgruppe, Bergbau, Berlin.
	Con	Industrie- und Handelskammer, Köln. Wirtschaftskammer, Köln.
Brückner, Nathaniel.	CBD	Braunkohlenprodukte, Berlin. Erdöl und Kohle Verwertung AG., Berlin. Deutsche Braunkohlen AG., Berlin. Deutsche Länderbank AG., Berlin. A. Riebeck'sche Montanwerke AG., Halle/Saale. A. Riebeck'sche Montanwerke AG., Halle/Saale.
von Brüning, Adolf, ao. Gesandter and bevollmächtigter Minister.	MBD	
Bücher, Hermann, Wirkl. Lega- tionsrat a. D., Dr. phil. Dr. oec. publ. h. c.	CMB	AEG Allgemeine Elektrizitäts-Gesellschaft, Berlin.
	CBD	Büssing-NAG, Vereinigte Nutzkraftwagen AG., Braunschweig. Grundstücks-AG., Marwitz, Berlin. Olympia Büromaschinenwerke AG., Erfurt. "Osram" GmbH. KG., Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise		
Bücher, Hermann, Wirkl. Legationsrat a. D., Dr. phil. Dr. oec. publ. h. c.—Continued.	DCBD	Deutsche Werft AG., Hamburg. Elektricitäts-Lieferungs-Gesellschaft, Berlin. Berliner Handels-Gesellschaft, Berlin.		
	MBD	Otavi Minen- und Eisenbahn-Gesellschaft, Berlin. Accumulatoren-Fabrik AG., Berlin. AEG Elektricitets-Aktieselskabet, Oslo. Aug. Burg AG., Berlin. "Chade" Compānia Hispano-Americana de Electricidad Barcelona.		
		MBD	Deutsch-Sudamerikanische Bank AG., Berlin. Elektrotreibband i. L., Hamburg. Fabrica de Lamparas Madrid S. A., Madrid. Gemeinnützige Bau-AG., Oberschöneweide, Berlin. Geathom Als. Thom.—I. G. & Co. (S. A.), Madrid. Gesellschaft für elektrische Unternehmungen AG., Berlin. Internationale AEG., Amsterdam. Fried, Krupp AG., Essen. Mitteldeutsche Stahlwerke AG., Riesa. Papierfabrik GmbH. vorm. Brüder Kämmerer, Osnabrück. Schlesische Elektrizitäts- und Gas-AG., Gleiwitz. Vereinigte Glühlampen und Elektrizitäts AG., Ujpest bei Budapest.	
			Con	Deutsche Reichsbank, Berlin. Industrie- und Handelskammer, Berlin.
			CBM	Harpener Bergbau AG.
	DCBD			Chemische Werke Essener Steinkohle AG., Essen. Wasserwerk für das nördliche westfälische Kohlenrevier, Gelsenkirchen.
	MBD		Buderus'sche Eisenwerke AG., Wetzlar. Dynamit AG. vorm. Alfred Nobel & Co., Troisdorf. Eisenwerk Gesellschaft Maximilianschütte, Rosenberg. Essener Steinkohlenbergwerks-AG., Essen. Ruhrbenzin AG., Oberhausen-Holten. Ruhrchemie AG., Oberhausen-Holten. Ruhrgas AG., Essen. Saargruben AG., Saarbrücken. Steinkohlen Elektrizitäts-AG., Essen. Westfalia Dinnendahl Gröppel AG., Bochum.	
			S	Verein für die bergbaulichen Interessen, Essen.
			DC	Rheinisch-Westfälischer Beirat Essen-Düsseldorf der Deutschen Bank, Berlin.
			Con	Deutsche Reichsbank, Berlin. Wirtschaftsgruppe Bergbau.
		MBD	Rheinisch-Westfälisches Kohlen-Syndikat, Essen.	
		Carp, Werner-----	CBD	Franz Haniel & Cie., GmbH., Duisburg-Ruhrort.
			MBD	"Albingia" Versicherungs-AG., Hamburg. Daimler-Benz AG., Stuttgart-Unter tärkheim. Demag-AG., Duisburg. Deutsche Kabelwerke AG., Berlin. Essener Steinkohlenbergwerke AG., Essen. Gutehoffnungshütte AG., f. Bergbau und Hüttenbetrieb, Nürnberg. Harpener Bergbau AG., Dortmund. Kabelwerk Rheydt AG., Rheydt. Oldenburg-Portugiesische Dampfschiffs-Rhederei, Hamburg. Rheinisch-Westfälische Sprengstoff-AG., Köln. Schiess AG., Düsseldorf. Rheinisch-Westfälischer Beirat der Deutschen Bank, Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Deleurant, Erich, Direktor.....	MBM DCBD MBD	Vereinigte Stahlwerke AG., Düsseldorf. Thyssen Eisen- und Stahl AG., Berlin. Gelsenberg Benzin AG., Gelsenkirchen. Reinische Werkswohnungs-AG., Hamborn. Rhein.-Westf. Wohnstätten AG., Essen. Heinr. August Schulte Eisen AG., Dortmund. Thyssen-Rheinstahl AG., Frankfurt/Main. Westdeutsche Wohnhyuser AG., Düsseldorf. Westfälische Wohnstätten AG., Dortmund. Stahlverein GabH. für Bergbau and Industrierwerte, Berlin.
	M	Zulassungsstelle der Rheinisch-Westfälischen Börse zu Düsseldorf.
Delius, Hans Conrad, Justitiar, Dr. jur.	DMBM CBD DCBD MBD	Reichswerke AG. für Ersbergbau und Hüttenwesen "Hermann Göring," Berlin. Bleichert'sche Braunkohlenwerke Neukirchen-Wyhra AG. Preussengrube AG., Berlin. Bau AG. Negrilli, Wien. Buchtal Ag. Keramische Betriebe der Reichswerke "Hermann Göring," Oeslau bei Coburg. Eisenwerke Oberdonau GamH., Graz. Grossdeutsche Umsiedlungs GmbH., Berlin. Sudentenländische Bergbau AG., Brüx. Sudentenländische Treibstoffwerke AG., Brüx. Wohnungs-AG der Reichswerke "Herman Göring," Linz.
Dinkelbach, Heinrich, Direktor, Düsseldorf.	MBM DCBD MBD	Vereinigte Stahlwerke AG., Düsseldorf. Vereinigte Kesselwerke AG., Düsseldorf. Gebr. Böhler & Co. AG., Wien. Deutsche Edelstahlwerke AG., Krefeld. Dortmunder Union Brückenbau AG., Dortmund. Gelsenberg-Benzin AG., Gelsenkirchen. Rheinisch-Westfälische Wohnstätten AG., Essen. Rheinische Werkswohnung-AG., Essen. Rheinische Wohnstätten AG., Duisburg. Schwerter Profileisenwalzwerk AG., Schwerte. Stahlwerke Brüninghaus, AG., Werdohl. Friedrich Thomee AG., Werdohl. Vereinigte Königs- und Laurahütte AG. für Bergbau und Hüttenbetrieb i. Abw., Berlin. Waagner-Biro AG., Wien. "Wehag" Westdeutsche Haushaltsversorgung AG., Bochum.
	MBD	Westdeutsche Wohnhäuser AG., Düsseldorf. Westfälische Werkswohnungs-AG., Dortmund. Westfälische Wohnstätten AG., Dortmund.
von Donnersmarck, Fürst Guido.	MBD	Allgemeine Elektrizitäts-Gesellschaft, Berlin. Schlesische AG für Bergbau und Zinkhüttenbetrieb, Lipine O/S. Schlesische Bergwerks und Hütten-AG., Beuthen. Schlesische Elektrizitäts- und Gas AG., Gleiwitz.
Donbuse, Werner, Bergrat a.D.....	MBD DCBD MBD CMB MBM	Klöckner-Werke AG., Duisburg. Westfälische Berggewerkschaftskasse, Bochum. Rheinische Chamotte- und Dinaswerke, Mehlem a. Rh. Ruhr gas AG., Essen. Wasserwerk für das nordl. westf. Kohlenrevier, Gelsenkirchen. Gewerkschaft Porta, Castrop-Rauxel 2. Gewerkschaft Pfannenberger Einigkeit, Salchendorf, Kreis Siegen.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Duhuse, Werner, Bergrat a.D.— Continued.	CMB MBM Con	Gewerkschaft Viator, Stickstoff- und Benzinwerke, Cas- trop-Rauel 2. Steinkohlen Elektrizität AG., Essen.
Duishurg, Carl Ludwig, Dr.-----	MBD	I. G. Farbenindustrie AG., Frankfurt/Main.
Eichler, Hans, Direktor.-----	MBM MBD	Gelsenkirchener Bergwerke AG., Essen. Rheinisch-Westfälische Wohnstätten AG., Essen. Westdeutsche Wohnhäuser AG., Düsseldorf.
Euler, Rudolf, Direktor.-----	MBM DCBD MBD	Metallgesellschaft AG., Frankfurt/Main. Schlesische Bergwerks- und Hütten-AG., Beuthen/OS. Deutsche Gold- und Silber-Scheideanstalt, vorm. Roess- ler, Frankfurt/Main. Schweizerische Gesellschaft für Metallwerte, Basel. Berliner Handels Gesellschaft, Berlin.
Ende, Dr.-----	M DCB	Zulassungsstelle der Wertpapierbörse zu Frankfurt/Main. Rheinische-Westfälisches Kohlen-Syndikat, Essen.
Feiler, Fritz, Bergwerksdirektor---	MBM MBD	A. Riebeck'sche Montanwerke AG., Halle/Saale. Mitteldeutsches Braunkohlen-Syndikat 1937 GmbH., Leipzig.
Fischer, Adalbert, Fabrikdirektor, Dr.	MBM BM MBD	Deutsche Gold- und Silber-Scheideanstalt vorm. Roessler, Frankfurt/Main. HIA-VEREIN Holzverkohlungs-Industrie GmbH., Frankfurt/Main. ATLAS AGO Chemische Fabrik AG., Mölkau bei Leipzig Auer-Gesellschaft AG., Berlin. Chemische Fabrik von J. E. Devrient AG., Hamburg. Bantlin'sche Chemische Fabriken AG, Percseny, Ungarn.
Fischer, Karl A., Direktor, Dr. rer. pol.	BM	Reederei "Braunkohle" GmbH., Köln. Reederei "Braunkohle" GmbH. & Co., Köln. Rheinische Braunkohlenindustrie-Gesellschaft mbH., Köln.
Fischer, Otto Christian, Kgl. Dani- scher Generalkonsul, Dr. jur. et phil.	O MBM CBD	Bankhaus Otto Christian Fischer, Berlin. Alpenminen AG., Salzburg. AG. für Verkehrswesen, Berlin. Noe Stross AG. der vereinigten Textilfabrikene. Liehauthal und Weisswasser, Liehauthal. Schlesische Portland-Zement-Industrie AG., Oppeln. Georg von Giesecke's Erben, Bergwerksgesellschaft, Bres- lau.
	DCBD	Deutsche Reichsbank, Berlin. Deutsche Centralhodenkredit AG., Berlin. "Victoria am Rhein" Allgemeine Versicherungs, AG., Düsseldorf. "Victoria" Feuer-Versicherungs-AG., Berlin. "Victoria zu Berlin" Allgemeine Versicherungs-AG., Berlin.
	MBD	Oesterreichische Magnesit AG., Radenthein. Allgemeine Deutsche Credit-Anstalt, Leipzig. Deutsche Heraklith AG., Simbach/Inn. Deutsche Hypothekendarbank in Meiningen, Weimar. Deutsche Jurgens-Werke AG., Hamburg. Königswerk AR., Radenthein. Sächsische Bodencreditanstalt, Dresden. Vereinigte Aluminium-Werke AG., Berlin.
	Con	Industrie- und Handelskammer, Berlin. Reichswirtschaftskammer, Berlin.
	S	Reichsgruppe, Banken, Berlin.
	M	Werberat der Deutschen Wirtschaft, Berlin. Zulassungsstelle an der Berliner Börse.
Flaceus, Adalbert, Hüttendirek- tor, Dipl.-Ing., Dr.-Ing. e. h.	CMB MBM CBD	Westfälische Union AG., für Eisen- und Draht-industrie, Hamm/Westfalen. Vereinigte Stahlwerke AG., Düsseldorf. Eisenindustrie zu Menden und Schwerte/Ruhr.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Flaccus, ¹ Adalberg, Hüttendirektor, Dipl.-Ing., Dr.-Ing. e. h.—Continued.	CBD	Schwerter Profileisenwalzwerk AG., Schwerte/Ruhr. Stahlwerke Brüninghaus AG., Werdohl/Westfalen. "Wurag" Eisen- und Stahlwerke AG., Hohnlimburg.
	MBD	Bergbau-und Hütten-AG., Friedrichshütte, Herdorf. Dortmunder Union Brückenbau AG., Dortmund. Eisenhütte Holstein AG., Rendsburg. Geisweider Eisenwerke AG., Geisweid. Ruhrstahl AG., Witten/Ruhr. Silika- und Schamotte-Fabriken Martin & Pagenstecher AG., Köln-Mulheim. Westdeutsche Wohnhäuser AG., Düsseldorf.
Flick, Friedrich, Dr. rer. pol. h. c. Dr.-Ing. e. h., Wehrwirtschaftsführer.	Part	Friedrich Flick KG., Düsseldorf.
	CBD	Anhaltische Kohlenwerke, Halle/Saale. Eisenwerk-Gesellschaft Maximilianhütte, Sulzbach-Rosenberg-Hütte. Essener Steinkohlenbergwerke AG., Essen. Harpener Berghaus AG., Dortmund. Mitteldensche Stahlwerke AG., Riesa Elbe. Sächsische Guss-stahlwerke Döhlen AG., Freital. Werschen-Weissenfelder Braunkohlen AG., Halle/Saale.
	DCBD	Hochofenwerk Lübeck AG., Lübeck-Herrenwyk. Linke-Hofmann-Werke AG., Breslau. Siegener Maschinenbau AG., Siegen.
	MBD	Allgemeine Elektrizitäts-Gesellschaft, Berlin. Allianz und Stuttgarter Verein Versicherungs-AG., Berlin. Dresdner Bank, Berlin. Dynamit AG. vormals Alfred Nobel & Co., Hamburg. Niederschlesische Bergbau AG., Waldenburg/Schlesien. Rheinische AG. für Braunkohlenbergbau u. Brikettfabrikation, Köln. Schering AG., Berlin. Vereinigte Stahlwerke AG., Düsseldorf. Waggon- und Maschinenfabrik vorm. Busch, Bantzen. Rheinisch-Westf. Elektrizitätswerk AG., Essen. Rheinisch-Westfälisches Kohlen Syndikat, Essen.
	MBM	Gewerkschaft des Steinkohlen- und Eisenstein-Bergwerks, "Siebenplaneten," Dortmund. Gewerkschaft Victoria-Fortsetzung, Lünen/Lippe.
	Con	Deutsche Reichsbank, Berlin.
von Flotow, Hans, Geh. Oberregierungsrat, Dr. jur.	M	Russland-Ausschuss der Deutschen Wirtschaft, Berlin.
	CBD	Gebrüder Stumm GmbH., Neunkirchen/Saar. Martini-Hüneke und Salzkotten Maschinen- und Apparatebau, AG., Berlin.
	DCBD	Deutsche Erdöl AG., Berlin. Didier-Werke AG., Berlin. Gelsenkirchener Bergwerks-AG., Essen. Neunkircher Eisenwerk AG., vormals Gebrüder Stumm, Neunkirchen. Vereinigte Stahlwerke AG., Düsseldorf.
	MBD	AG. der Dillinger Hüttenwerke Dillingen/Saar. Bochumer Verein für Guss-stahlfabrikation AG., Bochum. Dortmund-Hoerder Hüttenverein AG., Dortmund. Essener Steinkohlenbergwerke AG., Essen. Halberger Hütte GmbH., Brebach. Hannoversche Maschinenbau AG. vormals Georg Egestorff (Hanomag), Hannover-Linden. Mansfeld AG. für Bergbau und Hüttenbetrieb, Eisleben. Ruhrstahl AG., Witten. Schering AG., Berlin. W. Spindler AG., Berlin-Spindersfeld. August Thyssen-Hütte AG., Duisburg-Hamborn. Veigtländer & Sohn AG., Braunschweig.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Franke, Paul, Dipl.-Bergingenieur, Direktor.	MBM	A. Riebeck'sche Montanwerke AG., Halle, Saale.
	MBD	Deutsche Grube AG., Halle/Saale.
Frese, Arnold, Oberlandgerichts- r at a. D., Bankier, Dr.	Con	Industrie- und Handelskammer zu Halle/Saale.
	O	Bankhaus Delbrück von der Heydt & Co., Köln.
	CBD	Gebrüder Sehniewind AG., Neviges.
	DCBD	Kölner Kassenverein AG., Köln.
	MBD	Bayerisches Portlandzementwerk Kiefersfelden AG., Kiefersfelden.
		Portland-Cementwerk Burglengenfeld AG., Burglengen- feld.
		Portland-Cementwerke Heidelberg, Heidelberg.
		Rasselsteiner Eisenwerks-Gesellschaft AG. Neuwied- Rasselstein.
		Rheinische Zellwolle AG., Siegburg.
		"Sachtleben" AG. für Bergbau und ehem. Industrie, Köln/Rhein.
Fricke, Richard, Bergwerksdirek- tor Dr.-Ing. e. h.		Vereinigte Stahlwerke AG., Düsseldorf.
	MBM	Portland-Cement-Werke Wetterau, Lengfurt.
	VP	Rheinisch-Westfälische Börse zu Düsseldorf.
	MBM	Clarenberg AG. für Kohlen- und Tonindustrie, Köln.
		Rheinische AG. für Braunkohlenbergbau und Brikettfabri- kation, Köln.
		Rheinisches Elektrizitätswerk im Braunkohlenrevier AG., Köln.
	MBD	Rheinisches Braunkohlen-Syndikat GmbH., Köln.
		Rheinische Braunkohlentiefbaugesellschaft mbH., Köln.
	MBD	Dynamit AG. vorm. Alfred Nobel AG., Troisdorf, Bez. Köln.
		Gelsenkirchener Bergwerks-AG., Essen.
Funeke, Friedrich, Dr.-Ing. e. h., Bergrat, Generaldirektor, i. R.	CBM	Rheinische Wohnstätten AG., Duisburg-Hamborn.
	MBM	Rheinische-Westfälische Wohnstätten AG., Essen.
		Westfälische Wohnstätten AG., Dortmund.
	CBD	Ruhrwohnungsbau AG., Dortmund.
	MBD	Deutsche Eisenwerke AG., Mülheim-Ruhr.
		Gelsenkirchener Bergwerks-AG., Essen.
		Hüttenwerke Siegerland AG., Siegen.
		Westdeutsche Wohnhäuser AG., Düsseldorf.
	MBD	Schering AG.
	S	Vereinigte Stahlwerke AG., Verwaltung Berlin.
Gahn, Adam..... Göring, Herbert.....	BM	Stahlunion-Export GmbH., Handelsgesellschaft der Vereinigten Stahlwerke AG., Berlin.
	CBD	"Weser" Flugzeugbau GmbH., Bremen.
	DCBD	Deschimag, Deutsche Schiff- und Maschinenbau A.G., Bremen.
	MBD	Colonia Kölnische Versicherungs-AG., Köln.
		National Allgemeine Versicherungs-AG., Stettin.
		Schering AG., Berlin.
		Berliner Handelsgesellschaft, Berlin.
	M	Russland-Ausschuss der Deutschen Wirtschaft, Berlin.
	CBD	Dresdner Bank, Berlin.
		Deutsch-Südamerikanische Bank AG., Berlin.
Goetz, Carl.....		Sächsische Bodencreditanstalt, Dresden.
		Schlesische Elektrizitäts und Gas-AG., Gleiwitz.
	DCBD	Adlerwerke vorm. Heinrich Kleyer AG., Frankfurt/Main
		AG Allgemeine Elektrizitäts-Gesellschaft, Berlin.
		Deutsche Gold- und Silber Scheideanstalt vorm. Roessler Frankfurt.
	DCBD	Gesellschaft für Elektrische Unternehmungen AG., Berlin.
		Salzdetfurth AG., Berlin.
	MBD	Allianz und Stuttgarter Verein Versicherungs-AG., Berlin.
		Grün & Bilfinger AG., Mannheim.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Goetz, Carl—Continued.	MBD	Harpener Bergbau AG., Dortmund. Fried. Krupp AG., Essen. Mausser-Werke AG., Oberndorf/Necker. Münchener Rückversicherungs-Gesellschaft, München. Rheinisch-Westfälisches Elektrizitätswerk AG., Essen. Rheinische AG. für Braunkohlenbergbau und Brikettfabrikation, Köln. Rheinische Stahlwerke AG., Essen. Vereinigte Stahlwerke AG., Düsseldorf. Zellstoff-fabrik Waldhof, Berlin.
	Con M	Deutsche Reichsbank, Berlin. Landes-Ausschuss bei der Zentrale der Dresdner Bank, Berlin.
Gruhl, Max.....	CBD	Stahlwerk Mark Chemische Werke Reichert AG., Hamburg-Wilhelmsburg. Stahlwerk Mark Wengern AG., Wengern ü. Witten.
	MBD	Rheinische AG. f. Braunkohlenbergbau und Brikettfabrikation, Köln. Rheinisches Elektrizitätswerk im Braunkohlenrevier AG., Köln.
Haniel, Alfred, Dr.....	MBM	Steinkohlengewerkschaft Rheinpreussen. Steinkohlengewerkschaft Neumühl. Zeche Heinrich.
	DCBD	Calor-Emag Elektrizitäts-AG., Ratingen. Rhein-Umschlag AG., Düsseldorf-Reisholz.
	MBD	Oldenburg-Portugiesche Dampfschiffs-Rhederei, Hamburg.
	M	Rheinisch-Westfälischer Beirat Essen-Düsseldorf der Deutschen Bank, Berlin.
Haniel, Karl, Landrat a. D.....	BM	Haniel & Lueg GmbH., Düsseldorf-Grafenberg.
	CBD	Gutheshöfningshütte, Aktienverein für Bergbau u. Hüttenbetrieb, Nürnberg. Gutheshöfningshütte Oberhausen AG., Oberhausen Park-Hotel-AG., Düsseldorf.
	DCBD	Eisenwerk Nürnberg AG., vom. J. Tafel & Co., Nürnberg. Ferrostaal AG., Essen. Osnabrücker Kupfer-und Drahtwerk, Osnabrück.
	MBD	Allgemeine Elektrizitätsgesellschaft, Berlin. Bayerische Vereinsbank, München. Calor-Emag Elektrizitäts-AG., Berlin. Deutsche Werft AG., Hamburg. Emder Verkehrsgesellschaft AG., Emden. Hackethal-Draht und Kabel-Werke AG., Hannover. Kabel-und Metallwerke Neumeyer AG., Nürnberg. Maschinenfabrik Augsburg-Nürnberg AG., Augsburg. Maschinenfabrik Esslingen, Esslingen/Neckar. Vereinigte Werkstätten für Kunst im Handwerk AG., München. Zahnradfabrik Augsburg, vorm. Joh. Renk AG., Augsburg.
	M	Rheinisch-Westfälischer Beirat, Essen-Düsseldorf der Deutschen Bank, Berlin.
von Hanneken, Hermann, Major General, Commissioner-General for Iron and Steel on the Four- Year Plan (a Reich representa- tive on these corporations, all of which are wholly or partly owned by the Reich).	CS DCBD	im Reichswirtschaftsministerium. Preussische Elektrizitäts AG., Berlin. Sudetenlandische Bergwerks AG., Brüx. Sudetenlandische Treibstoffwerke AG., Brüx. Preussische Bergwerks-und Hütten AG., Berlin. Saargruben AG., Saarbrücken.
	MBD	Alpine Montan AG. "Hermann Göring," Linz/Donau. Berkwerksgesellschaft Hibernia AG., Herne/Westf. Brüxer Kohlenbergbau-Gesellschaft, Brüx.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
von Hanneken, Hermann, Major General, Commissioner-General for Iron and Steel, etc.—Con.	MBD	Nordbömische Kohlenwerks-Gesellschaft, Brück. Reichswerke AG. für Erzbergbau und Eisenhütten "Hermann Göring." Vereinigte Elektrizitäts-u. Bergwerks AG., Berlin.
Hartenstein, Hans.....	MBM	Schering AG.
Härle, Carl, Direktor, Dr. jur.....	MBM	Thyssen & Co., AG., Mülheim/Ruhr. Schachtbau Thyssen GmbH., Mülheim. Thyssen'sche Handelsgesellschaft mbH., Mülheim.
	MBD	AG. Mulcan, Mülheim. Bergbau AG., Ewald-König Ludwig, Herten/Westf. Gelsenkirchener Bergwerks-AG., Essen. Vereinigte Königs-und Laurahütte AG. für u. Hüttenbetrieb i.L., Berlin. Vereinigte Stahlwerke AG., Düsseldorf. Wasserwerk f. d. nordl. westf. Kohlenrevier, Gelsenkirchen.
	M	Landes-Ausschuss für Rheinland der Dresdner Bank, Berlin.
Hecker, Ludwig.....	MBM	Schering AG.
Henke, Ernst, Direktor.....	MBM	Rheinisch-Westfälisches Elektrizitätswerk AG., Essen.
	CBD	Gas AG., Ritter & Cie., Siegen i. W.
	DCBD	AG. für Deutsche Elektrizitätswirtschaft, Berlin. AG. für Energiewirtschaft, Berlin.
	MBD	Rheinische Elektrizitäts-AG., Mannheim Rheinkraftwerk Albrück-Dogern AG., Waldshut/Rh. Allianz und Stuttgarter Verein Versicherungs-AG., Berlin. Braunkohlen-Industrie -AG. Zukunft, Weisweiler. Braunkohlen-u. Briketwerke Roddergrube AG., Brühl. Dresdner Bank, Berlin. Elektrizitäts-AG., vorm. W. Laymeyer & Co., Frankfurt/M. Elektrowerke AG. (Reichselektrowerke), Berlin. Isarwerke AG., Berlin. Kraftwerk Altwürttemberg AG., Ludwigsburg. Lech. Elektrizitätswerke AG., Augsburg. Main-Kraftwerke AG., Frankfurt/Main-Höchst. Niederrheinische Licht und Kraftwerke AG., Rheydt. Preussische Elektrizitäts-AG. (Berlin). Rheinisch-Westfälische Wasserwerke GmbH., Mülheim. Rheinische AG. für Braunkohlenbergbau u. Brikettfabrikation, Köln. Schluchseewerk AG., Freiburg/Br. Süddeutsche Eisenbahn-Gesellschaft, Darmstadt. Voralberger Illwerke AG., Bregenz.
	M	Landes Ausschuss für Rheinland der Dresdner Bank. Zulassungsstelle der Rheinisch-Westf. Börse zu Düsseldorf.
Herrman, Conrad.....	MBM	Schering AG.
Holle, Ludwig, Direktor, Dr.....	MBM	Rheinisch-Westfälisches Kohlensyndikat, Essen.
	M	Zulassungsstelle der Rheinisch-Westfälischen Börse zu Düsseldorf.
Hollender, Karl, Generaldirektor, Bergrat.	CBM	Bergbau AG., Ewald-König Ludwig, Herten, Westf. AG., Eisenhütte Prinz Rudolph, Dülmen/Westf.
	MBD	Gesellschaft für Kohlentechnik mbH., Essen. Rheinisch-Westfälisches Kohlensyndikat, Essen. Ruhrbenzin AG., Oberhausen-Holten. Ruhrchemie AG., Oberhausen-Holten. Ruhrgas AG., Oberhausen-Holten. Verkaufsvereinigung für Teererzeugnisse GmbH., Essen Wasserwerk für das nördliche westfälische Kohlen revier. Westfälische Transport-AG., Dortmund. Stickstoffsyndikat GmbH., Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Bonigmann, Alfred, C. P. J., Dutch industrialist, Heerlen/ Holland.	MBD	Essener Steinkohlenwerke AG., Essen.
	MBM	Vereinigte Stahlwerke AG., Düsseldorf.
Huber, Willi Generaldirektor, Dr. jr.	CBD	Berliner Handels-Gesellschaft, Berlin.
	DCBD	Hedwigshütte Kohlen- und Kokswerke AG., Stettin.
		Presswerk AG., Essen.
		Rheinisch-Westfälisches Kohlensyndikat, Essen.
	MBD	Benzol-Verband GmbH., Bochum.
		Concordia Bergbau AG., Oberhausen Rhld.
		Deutsche Ammoniak-Verkaufs-Vereinigung GmbH., Bo- chum.
		Gelsenkirchener Bergwerks-AG, Essen.
		Vereinigte Stahlwerke AG., Düsseldorf.
		Raab-Karcher GmbH., Karlsruhe.
	Con	Ruhr gas AG., Essen.
	M	Rheinisch-Westfälischer Beirat der Deutschen Bank, Berlin.
Hugenberg, Alfred, Reichsminister a. D., Geh. Finanzrat, Dr. rer. pol., M. d. R.	Part	August Scherl Nachfolger, Berlin.
		August Scherl Handels- und Verwaltungs-KG, Berlin.
	CBD	Alterum Verwaltungs-AG., Berlin.
		Baustoffwerke Rohbraken, Hugenberg & Co., Rohbraken.
		Tornado Fabrik elektrischer Maschinen und Apparate GmbH., Berlin.
		Wehrmacht Presse-Verlag, Berlin.
		Deutsches Gewerbehaus AG., Berlin.
	MPD	Vereinigte Stahlwerke AG., Düsseldorf.
Janus, Albert, Generaldirektor, Dr. Ing. h. c.	MBM	Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
	CBD	AG. Reichskohlenverband, Berlin.
		Frachtkontor GmbH., Hamburg.
		Hotel Kaiserhof, Essen/Ruhr.
	CBD	Kohlentransport GmbH., Ruhrort.
		Seereederei "Frigga" AG., Hamburg.
		Westfälisches Kohlen-Kontor GmbH., Hamburg.
	MBD	Deutsches Kohlen-Depot, Hamburg.
		Metallwerke Unterweser AG. Nordenham, Friedrich- August-Hütte, Oldenburg/Oldbg.
		Münsterische Schiffsahrts- und Lagerhaud-AG., Münster/ Westf.
		Ruhrelectrizitäts-GmbH., Essen/Ruhr.
		Westfälische Transport AG, Dortmund.
	Con	Ruhr gas AG., Essen/Ruhr.
Johanningmeier, Julius, Direktor...	BM	Vereinigungsgesellschaft Rheinischer Braunkohlenberg- werke
	MBM	Clarenberg AG. für Kohlen u. Tonindustrie, Köln.
		Rheinische AG. für Braunkohlenbergbau und Brikatt- fabrikation, Köln.
		Rheinisches Elektrizitätswerk im Braunkohlenrevier AG., Köln.
	MBD	Braunkohlen-und Briketwerke Roddergrube AG., Bruhl, Bez. Köln.
		Rheinisches Braunkohlen-Syndikat GmbH., Köln.
		Union Rheinische Braunkohlen Kraftstoff AG., Köln.
Kauert, Herbert, Bergwerksdirek- tor, Essen (nephew of Emil Kirdorf [deceased], who founded RWKS and dispensed the funds that helped bring Hitler to power).	MBM	Gelsenkirchener Bergwerks-AG., Essen.
		Gelsenberg-Benzin-AG., Gelsenkirchen.
	CBD	AG. für Steinkohleverflüssigung und Steinkohleveredlung, Duisburg-Meiderich.
		Benzinverband Ruhr GmbH., Bochum.
		Ges. für Teerverwertung mbH., Duisourg-Meiderich.
		Verkaufsvereinigung für Teererzeugnisse GmbH., Essen.
		Westdeutsche Haushalt-Versorgung AG., Bochum.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Kauert, Herbert, Bergwerksdirektor, Essen (nephew of Emil Kirdorf [deceased], who founded RWKS and dispensed the funds that helped bring Hitler to power)—Continued.	MBD	Benzol-Verband GmbH., Bochum.
		Coneordia Bergbau AG., Oberhausen.
		Concordia Elektrizitäts-AG., Dortmund.
		Deutsche Ammoniak Verkaufs-Vereinigung GmbH., Bochum.
		Deutsches Gewerbehaus AG., Berlin.
		Deutsches Kohlen-Depot GmbH., Hamburg.
		Kohlentransport GmbH., Duisburg-Ruhrort.
		Maschinenbau-Ag. Baleke, Bochum.
		Rheinische Wohnstätten AG., Duisburg-Hamborn.
		Rheinisch-Westfälische Kalkwerke, Dornap.
		Rheinisch-Westfälische Wohnstätten AG., Essen.
		Rheinisch-Westfälisches Kohlen-Syndikat AG.
		Ruhrbenzin AG., Oberhausen-Holten.
		Ruhrechemie AG., Oberhausen-Holten.
		Ruhrgas AG, Essen.
		Seereederei "Frigga" AG., Hamburg.
		Silika- und Schammottefabriken Martin & Pagenstecher AG., Köln-Mülheim.
		Wasserwerk für das nördliche westfälische Kohlen-revier, Gelsenkirehen.
		Westdeutsche Wohnhäuser AG., Essen.
		Westfälische Wohnstätten-AG., Dortmund.
Kehl, Werner, Norwegischer Generalkonsul, Dr. jur.	BM	Corhart GmbH., Fabrik für feuerfeste Erzeugnisse, Aachen.
	CBD	Glas-Verkaufs-GmbH., Aachen.
	DCBD	Deutsche Tafelglass AG., Furth/Bay.
		F. H. Hammersen AG., Osnabruek.
	MBD	Christian Dierig AG., Langenbielau.
		Mirrolyt AG., Brux.
		Vereinigte Seidenwebereien AG., Krefeld.
		Vereinigte Stahlwerke AG., Düsseldorf.
		Eisenwerk-Gesellschaft Maximilianshutte, Rosenberg.
		Kammgarnspinnerei Stohr & Co., AG., Leipzig.
Kehrl, Hans, Präsident, Generalreferent im Reichswirtschaftsministerium.	P	Karl Koethen GmbH., Sehrobsdorf.
		Mitteldeutsche Glashandles-AG., Leipzig.
	MBD	Ruhrstahl AG., Witten Ruhr.
		AG. für Textilunternehmungen, Schaffhausen, Schweiz.
		Industrie- und Handelskammer für die Niederlausitz, Cottbus.
		Alpine Montan AG., "Hermann Goring," Linz/Donau.
		Brüxer Kohlenbergbau-Gesellschaft, Brüx/Sudetenland.
		Kurmärkische Zellwolle und Zellulose AG., Berlin.
		Nordböhmische Kohlenwerks-Gesellschaft, Brüx.
		Rheinische Kunstseide AG., Krefeld.
		Rheinische Zellwolle AG., Siegburg.
		Spinnstoffwerk Glauchau AG., Glauchau.
		Sudetenländische Bergbau AG., Brüx.
		Sudetenländische Treibstoffwerke AG., Brüx.
		Süddeutsche Zellwolle AG., Kelheim.
		Thüringische Zellwolle AG., Schwarza/Saalbahn.
		Westfälische Zellstoff AG., Arnsberg.
		Zellstoff-Fabrik Küstrin AG., Küstrin.
		Zellwolle Lenzing AG., Lenzing.
Kellerman, Hermann, Direktor, Bergassessor a. D.	Con	Spinnstoff GmbH., Schwarza, Berlin.
	C	Aussenhandelsstelle für Ost-Brandenburg.
	DS	Wirtschaftskammer Berlin-Brandenburg.
	MBM	Gutehoffnungshütte Aktienverein für Bergbau und Huttenbetrieb, Nürnberg.
	DCBM	Gutehoffnungshütte Oberhausen AG., Oberhausen.
	CBD	Münsterische Schifffahrts- und Lagerhaus AG., Münster/Westf.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Kellerman, Hermann, Direktor, Bergassessor a. D.—Continued.	CBD	Rheinisch-Westfälisches Kohlensyndikat, Essen/Ruhr. Steinkohlen-Elektrizitäts-AG., Essen.
	DCBD	Westfälische Transport AG., Dortmund.
	MBD	Berghau AG., Ewald-König Ludwig, Herten/W. AG. Reichskohlenverband, Berlin. Deutsches Kohlen-Depot GmhH., Hamburg. Ferrostaal AG., Essen/Ruhr. Gesellschaft für Kohlentechnik mhH., Dortmund. Ruhrbenzin AG., Oberhausen-Holten. Ruhrhomic AG., Oberhausen-Holten. Ruhrgas AG., Essen. Seereederei "Frigga" AG., Hamburg.
	P	Reichsstelle für Bodenforschung, Berlin.
	CBD	Braunkohle-Benzin AG., Berlin. Deutsche Revisions und Treuhand AG., Berlin. Deutsche Umsiedlungs-Treuhand GmhH., Berlin.
	DCBD	Reichswerke AG. für Erzherghau und Eisenhütten "Hermann Göring," Salzgitter-Berlin. Hibernia Bergwerksgesellschaft, Herne/Westf.
	MBD	Alpine Montan AG. "Hermann Göring," Linz/Austria. Hamburg-Amerikanische Packetfahrt AG., Hamburg. Junkers-Flugzeug-und Motorenwerke, Dessau-Berlin. Norddeutscher Lloyd, Bremen. Preussische Bergwerks-und Hütten AG., Berlin. Reichswerke "Hermann Göring," Linz. Saargruben AG., Saarbrücken. Steyr-Daimler-Puch AG., Steyr-Wien.
	P-BD	Erste Donau-Dampfschiffahrts-Gesellschaft, Wien.
	Leiter	Zentralstelle für die wirtschaftspolitischen Organisationen der NSDAP.
	Con	Magdeburger Werkzeugmaschinenfabrik GmhH., Magdeburg. Fahrzeug-u. Motorenwerke GmhH., vorm. Maschinenbau Linke-Hofmann, Breslau.
Kesten, Wilhelm, Generaldirektor, Bergassessor a. D.	CBM	Deutsche Lihbey-Owens-Gesellschaft für maschinelle Glasherstellung, Gelsenkirchen, Rotthausen.
	CBD	AG. Kühnle, Kopp & Kausch AG., Frankenthal. Feuerschadenverband rheinisch-westfälischer Zechen GmhH., Bochum. Knoeßel, Schmidt & Cie., Papierfabriken AG., Lambrecht/Pfalz.
	DCBD	Bergwerksgesellschaft Dahlhusch AG., Gelsenkirchen-Rotthausen. Verein Deutscher Tafelglashütten GmhH., Frankfurt/Main.
	MBD	Didier Werke AG., Berlin. Dynamit AG. vorm. Alfred Nohel & Co., Troisdorf. Gesellschaft für Teerverwertung mhH., Duisburg. Glashütte Hermannsthal/O.-S. Rheinisch-Westfälisches Kohlensyndikat, Essen.
	M	Rheinisch-Westfälischer Beirat Essen-Düsseldorf der Deutschen Bank, Berlin.
	Con	Ruhrgas AG., Essen. Wirtschaftsgruppe Glasindustrie.
	MBM	Deutsche Bank, Berlin. Gewerkschaft ver. Constantin der Grosse, Bochum. Compania Hispano-Americana de Electricidad S. A., Brussels, Belgium.
	CBD	Deutsche-Erdöl-AG., Berlin. Gesellschaft für elektrische Unternehmungen AG., Berlin. Hoersch-AG., Dortmund.
Kimmich, Karl, Dr.....		

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Kimmich, Karl, Dr.—Continued.	DCBD	Allgemeine Elektrizitäts-Ges., Berlin.
		Bergbau AG., Ewald-König Ludwig, Essen.
		Essener Steinkohlenbergwerke AG., Essen.
	MBD	Klocknerwerke AG., Castrop-Rauxel.
		Braunkohlen-Industrie AG., "Zukunft," Eschweiler.
		Allianz und Stuttgarter Verein Versicherungs-AG., Berlin.
		Demag AG., Duisburg.
		Eisenwerk-Gesellschaft Maximilianshütte, Rosenberg/ Oberpfalz.
		Harpener Bergbau AG., Dortmund.
		Henkel & Cie. AG., Düsseldorf.
		Mitteldeutsche Stahlwerke AG., Riesa/Sachsen.
		Mühlheimer Bergwerks-Verein, Essen.
		Rheinmetall-Borsig-AG., Düsseldorf.
		Ruhrstahl AG., Witten/Ruhr.
		Vereinigte Elektrizitätswerke Westfalen AG., Dortmund.
		Vereinigte Seidenwebereien AG., Krefeld.
		Vereinigte Stahlwerke AG., Düsseldorf.
	M	Deutsche Reichsbank.
Klöckner, Florian, Dr. rer. pol. h. c.	DCBD	Henkel & Cie., GmbH., Düsseldorf.
		Germania GmbH. für Verlag und Druckerei, Berlin.
	MBD	Klöckner-Humboldt-Deutz AG., Köln.
		Eckhardt & Co., Hamburg.
		Geisweider Eisenwerke AG., Geisweid.
Klöckner, Peter, Geheimer Kom- merzienrat, Dr.-Ing. e. h.	CBMG	Humboldt-Deutz-Reparatur-Werkstätten, Hamburg.
		Klöckner-Werke AG., Duisburg.
	CBD	Gewerkschaft Viktor Stickstoffwerke Castrop-Rauxel.
		Gewerkschaft Pfannenberger Einigkeit Salchendorf/Kreis Siegen.
		Gewerkschaft Viktor Stickstoffwerke Castrop-Rauxel.
		Eckhardt & Co. AG., Hamburg.
	MBD	Hochofenwerk Lübeck AG., Herrenwyk-Lübeck
		Klöckner-Humboldt-Deutz AG., Köln-Deutz.
		Klöckner-Werke AG., Duisburg.
		Vereinigte Kugellagerfabriken AG., Schweinfurt.
Knepper, Gustav, Bergwerksdirek- tor, Dr.-Ing. e. h.	M	Deutsche Bank, Berlin.
		Dynamit AG. vorm. Alfred Nobel & Co., Hamburg.
		Geisweider Eisenwerke AG., Geisweid.
		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
	CBM	Stahlwerke-Verband AG., Düsseldorf.
		Russland-Ausschuss der Deutschen Wirtschaft, Berlin.
		Gelsenkirchener Bergwerks-AG., Essen.
	MBM	Bochumer Verein für Gussstahlfabrikation AG., Bochum.
		Dortmund-Hoerder Hüttenverein, Dortmund.
		Rurtalsperren-Verein, Essen.
	CBD	Gewerkschaft Hürtherberg, Hermühlheim.
		Gelsenberg-Benzin AG., Gelsenkirchen.
		Rheinisch-Westfälische Wohnstätten AG., Essen.
	DCBD	Ruhrbenzin AG., Oberhausen-Holten.
		Ruhrchemie AG., Oberhausen-Holten.
		Wasserwerk für das nördliche westfälische Kohlen-revier, Gelsenkirchen.
	MBD	Westdeutsche Wohnhäuser AG., Düsseldorf.
		Concordia Bergbau AG., Oberhausen/Rheinland.
	MBD	Benzol Verband, GmbH., Bochum.
		Bergbau AG. Edwald-König Ludwig, Herten/Westfalen.
		Bergwerksverband zur Verwertung von Schutzrechten der Gesellschaft für Kohlentechnik GmbH., Comaronharz Verband GmbH., Bochum.
	MBD	Deutsche Ammoniak Verkaufs-Vereinigung GmbH, Bochum.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Knepper, Gustav, Bergwerksdirektor, Dr. Ing. e. h.—Continued.	MBD	Dortmunder Union Brückenbau AG., Dortmund.
		Dyamt AG., vom. Alfred Nobel, Köln-Rhein.
		Eisenwerk-Gesellschaft Maximilianshütte, Sulzbach-Rosenberg Hütte/Bayer, Ostmark.
		Essener Steinkohlenbergwerke AG., Essen.
		Gesellschaft für Kohlentechnik GmbH., Dortmund-Eving.
		Gesellschaft für Teerverwertung GmbH., Duisburg.
		Harpener Bergbau AG., Dortmund.
		Hoesch AG., Dortmund.
		Kaiserhof Hotel-Gesellschaft mbH.
		Mineralöl Bau GmbH., Berlin.
		Nordische Holzhandelsgesellschaft mbH., Essen.
		Rheinisch-Westfälische Bergwerksgesellschaft mbH., Mülheim-Ruhr.
		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
		Rheinische Wohnstätten AG., Duisburg-Hamborn.
		Ruhrstahl AG., Witten.
		Schering AG., Berlin.
		Siegner Maschinenbau AG., Siegen/Westfalen.
		August Thyssen-Hütte AG., Duisburg-Hamborn.
		Westfälische Transport AG., Dortmund.
		Verbands-Wasserwerk GmbH., Bochum.
		Verkaufs-Vereinigung für Teererzeugnisse GmbH., Essen.
		Rheinisch-Westfälisches Elektrizitätswerk AG., Essen.
		Ruhrgas AG., Essen-Ruhr.
		Braunkohlen- & Brikettwerke Rodiergrube AG., Bruhl bei Köln.
		Elektrizitäts-AG. vorm. W. Lahmeyer & Co., Frankfurt.
		Hochtief AG., für Hoch- und Tiefbauten, Essen.
		Rheinisch-Westf. Elektrizitätswerk AG., Essen.
Koeppen, Arthur, Direktor, Dr. Ing. e. h.	Con	
	MBM	Braunkohlen- & Brikettwerke Rodiergrube AG., Bruhl bei Köln.
		Elektrizitäts-AG. vorm. W. Lahmeyer & Co., Frankfurt.
		Hochtief AG., für Hoch- und Tiefbauten, Essen.
		Rheinisch-Westf. Elektrizitätswerk AG., Essen.
		Braunkohlen-Industrie AG. "Zukunft," Weisweiler, Eschweiler.
		Kraftwerk Altwürttemberg AG., Beihingen.
		Lech. Elektrizitätswerke AG., Augsburg.
		Main-Kraftwerke AG., Frankfurt/Main-Hochst.
		Rheinische-Elektrizitäts-AG., Mannheim.
		Rheinkraftwerk Albrück-Dogern AG., Waldshut/Baden.
		Niederrheinische Licht- und Kraftwerke AG., Rheydt.
		Schluchzwerke AG., Freiburg.
		AG. für Energiewirtschaft, Berlin.
		Deutsche Bank, Berlin.
		Elektrizitäts-Lieferungs-Gesellschaft, Berlin.
		Elektrowerke AG., Berlin.
		Eschweiler Bergwerks-Verein, Kolscheid.
		Isarwerke AG., München.
		Marisches Elektrizitätswerke AG., Berlin.
		Nordw stdeutsche Kraftwerke AG., Hamburg.
		Preussische Elektrizitäts-AG., Berlin.
		Rheinische AG. für Braunkohlenbergbau u. Brikettfabrikation, Köln.
		Vereinigte Aluminiumwerke AG., Berlin.
		Vorarlberge Illwerke AG., Bregenz.
		Oberstein-Idarer Elek.-AG., Idar.
		Berliner Handels-Gesellschaft, Berlin.
Koeppel, Wilhelm, Dr. jur.-----	CBD	
	O	
	MBM	Berliner AG. für Vermögensverwaltung, Berlin.
		Allgemeine Lokalbahn und Kraftwerke AG.
	CBD	Baumwollindustrie Erlangen-Bamberg AG., Erlangen.
		Deutsche AG. für Nestle-Erzeugnisse, Berlin.
		Elektrizitäts-Lieferungs-Gesellschaft, Berlin.
		Kraftübertragungswerke, Rheinfelden.
		"Sarotti" AG., Berlin.
		Zuckerraffinerie Tangermünde Fr. Meyers Sohn AG.

POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Koppel, Wilhelm, Dr. jur.—Con.	DCBD	AG. für Verkehrswesen, Berlin. Deutsche Continental-Gas-Gesellschaft, Dessau. Lech Elektrizitätswerke AG., Augsburg. Rütgerswerke AG., Berlin. Schering AG., Berlin.
	MBD	Accumulatoren-Fabrik AG., Berlin-Hagen. Deutsche Centralbodencredit AG., Berlin. Deutsche Dampfschiffahrts-Gesellschaft "Hansa." Deutsche Edelstahlwerke AG., Krefeld. Kraftwerk Laufenburg, Laufenburg/Schweiz. Preussengrube AG., Berlin. Vereinigte Deutsche Nickel AG., Schwerte. Vereinigte Industrie Unternehmungen AG., Berlin. Vereinigte Stahlwerke AG., Düsseldorf.
Korth, F.-----	MBM	Gewerkschaft Westfalen, Ahlen/Westf.
Kost, Heinrich, Bergassessor a. D., Generaldirektor.	MBM	Rheinisch-Westfälisches Kohlen Syndikat, Essen.
	MBD	Bergwerksgesellschaft Dahlbusch, Gelsenkirchen-Rott- hausen. Deutsche Ammoniak-Verkaufs-Vereinigung GmbH, Bochum. Rheinisch-Westfälisches-Kohlen-Syndikat, Essen. Ruhrbenzin AG., Oberhausen-Holten. Ruhrchemie AG., Oberhausen-Holten. Ruhrgas AG., Essen.
	M	Rheinisch-Westfälischer Beirat (Essen-Düsseldorf) der Deutschen Bank, Berlin.
Kralik, D. H. (Hans), Ministerial- rat a. D., Direktor.	MBM	Rheinisch-Westfälisches Kohlen-Syndikat, Essen/Ruhr.
Krupp von Bohlen und Halbach, Alfried, Dipl.-Ing (son of Gus- tav—became head of Krupp in- terests, Dec. 1943), Essen-Hügel, Auf dem Hügel.	MBM	Friedrich Krupp AG., Essen.
		Verein für bergbauliche Interessen, Essen.
	MBD	AG. für Unternehmungen der Eisen- und Stahlindustrie, Berlin. Allianz und Stuttgarter Verein Versicherungs-AG., Berlin. Badische Wolframerz-GmbH., Sölingen bei Karlsruhe. Berndorfer Metallwarenfabrik Arthur Krupp AG., Bern- dorf bei Wien. Capito & Klein AG., Düsseldorf-Benrath. Dresdner Bank, Berlin. Flughafen GmbH., Essen-Mülheim. Friedrich Krupp Germaniawerft AG., Kiel. Friedrich Krupp Grusonwerk AG., Magdeburg. Friedrich Krupp's Reederij en Transportbedrijf N. V., Rotterdam. Norddeutsche Hütte AG., Bremen-Oslebshausen. N. V. Stuwadoors Maatschappij "Kruwal," Rotterdam. Rheinisch-Westfälisches Kohlensyndikat, Essen. Siedlungsgesellschaft Rossenray AG., Rheinberg West- fälische Drahtindustrie, Hamm.
	CBMG	Gewerkschaft Emscher-Lippe, Datteln/Westf.
	MBM	Gewerkschaft ver. Constantin der Grosse, Bochum. Gewerkschaft Schlesische Nickelwerke, Gläsendorf bei Frankenstein/Schlesien.
Krupp, Gustav v. Bohlen und Halbach, ao. Gesandter u. hev. Minister, Industrieller, Dr. Jur., Dr. Phil. h. c. Dr.-Ing. ch., Dr. rer. pol. h. c., Essen-Hügel, Auf dem Hügel.	CBD	AG. für Unternehmungen der Eisen- und Stahlindustrie, Berlin. Berndorfer Metallwarenfabrik Arthur Krupp AG., Bern- dorf. Fried. Krupp AG., Essen. Fried. Krupp Germaniawerft AG., Kiel. Fried. Krupp Grusonwerk AG., Magdeburg.
	MBD	Vereinigte Industrie-Unternehmungen AG. (VIAG), Berlin. Rheinisch-Westfälisches Kohlen Syndikat, Essen.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Krupp, Gustav v. Bohlen und Halbach, ao. Gesandter u. hev., etc.—Continued.	Con C	Deutsche Reichsbahn, Berlin. Kuratorium Adolf-Hitler-Spende der deutschen Wirtschaft, Berlin.
Kuhne, Hans, Direktor, Dr.-----	MBM BM DCBM	I. G. Farbenindustrie AG., Frankfort/Main. Deutsche Aktivkohle GmbH., Frankfort/Main. Titangesellschaft mbH., Leverkusen. AG, für Lithoponfabrikation, Wunschendorf, Elster. Duisberger Kupferhütte. Erzgesellschaft zur Erschliessung von Nichteisenmetallen mbH., Berlin.
	MBD	AG, für chemische Industrie Gelsenkirchen-Schalko. Chemische Fabrik Marienhütte GmbH., Fürstenwalde, Spree. Rheinisch-Westf. Elektrizitätswerk AG., Essen. Sachtleben AG, für Bergbau u. chemische Industrie, Köln. Societa Italiana del Litopone, Milan. Societa Italiana Carboni Attivi, Milan.
Krukenberg, Siegfried, Oberwältungsdirektor, Dr.	MBM BM DCBD CBD MBM	Gewerkschaft Castellengo-Abwehr, Gleiwitz. Oberschlesische Eisenbahn-Bedarfs-AG., Gleiwitz. Waldindustrie GmbH., Gleiwitz. LAS S. A., Kattowitz. Gelände u. Bau-AG., Breslau. Carlshütte Maschinen u. Stahlbau GmbH., Waldenburg. Friedenshütte S. A., Kattowitz. Kokerei Vereinigung GmbH., Berlin. Ferrum AG., Kattowitz. Vereinigte Holzindustrie AG., Gleiwitz. Vereinigte Oberschlesische Huttenwerke AG., Gleiwitz. VHI Vereinigte Holzindustrie AG, für Holzhandel.
Kruek, Ludwig, Generaldirektor--	CBM MBD	Borsig-Kokswerke AG., Hindenburg. Haftpfliehtverband der Deutschen Industrie V. a. G., Hannover. Lignose Sprengstoffwerke GmbH., Berlin. Niederschlesische Bergbau AG., Waldenburg. Schering AG., Berlin.
Marx, Paul, Bankdirektor, Dr. jur.	M MBM CBD DCBD MBD	Schlesischer Beirat der Deutschen Bank, Berlin. Commerz- und Privat-Bank Ag., Berlin. Allgemeine Hoch- und Ingenieurbau AG., Düsseldorf. Beton- und Monierbau AG., Berlin. Germania Brauerei F. Dieningshof AG., Münster Westfalen. Feldmühle. Papier- und Zellstoffwerke AG., Stettin. Neusser Papier- und Pergamentpapier, Fabrik AG., Neuss. Park-Hotel AG., Düsseldorf. Buderus'sche Eisenwerke, Wetzlar. Didier-Werke AG., Berlin. Ferrostaal AG., Essen. Hansa-Mühle AG., Hamburg. Klöckner-Werke AG., Duisburg. Mitteldeutsche Stahlwerke AG., Riesa/Elbe. Rheinisch-Westfälische Kalkwerke, Dornap. Rheinmühlen AG., Düsseldorf. Vereinigte Stahlwerke AG., Düsseldorf. Westdeutsche Kaufhof AG., Köln.
Massingh, Heins, Bergwerksdirektor.	MBM CBD	A. Riebeck'sche Montanwerke AG., Halle. "Bituma" Bergbau- und chemische Industrie AG., Aussig. Mitteldeutsches Braunkohlensyndikat GmbH., Leipzig.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Maste, Paul, Bergwerksdirektor, Dr.-Ing. e. h.	MBM	Clarenberg AG., für Kohlen- und Tonindustrie, Köln. Rheinische AG., für Braunkohlenbergbau und Brikett- fabrikation, Köln. Rheinisches Elektrizitätswerk in Braunkohlenrevier AG., Köln.
	MBD	Rheinisches Braunkohlen-Syndikat, GmbH., Köln.
Meinberg, Wilhelm, Staatsrat, M. d. R.	CBM	Wohnungs-AG. der Reichswerke "Hermann Göring," Braunschweig.
	DMB	Reichswerke AG. für Erzbergbau und Eisenhütten "Her- mann Göring," Berlin.
	CBD	Stuag Strassen- und Tiefbau-Unternehmung AG., Wien.
	MBD	Allianz und Stuttgarter Verein Versicherungs-AG., Berlin. Dresdner Bank, Berlin.
	M	Deutsche Pachthank GmbH., Berlin.
	COS	Reichsarbeitskammer, Berlin. der NSDAP.
Metzger, Joseph, Direktor, Dr.- Ing.	MBM	A. Riebeck'sche Montanwerke AG., Halle/Saale.
Mockewitz, Karl, Bergwerksdirek- tor.	CBM	Rheinische Stahlwerke, Essen.
	BM	Joseph Schürmann GmbH., Duisburg.
	DCBD	Gesellschaft für Teerstrassenbau mgH., Essen. Schermerbecker Thon- und Falzziegelwerke AG., Scherm- beck.
	MBD	Benzol-Verband GmbH., Bochum.
		Cumarenharz-Verband GmbH., Bochum.
		Deutsche Ammoniak-Verkaufs-Vereinigung GmbH., Bo- chum.
		Dynamit AG., vorm. Alfred Nobel & Co., Troisdorf.
		Gesellschaft für Teerverwertung, Duisburg-Meiderich.
		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
		A. Riebeck'sche Montanwerke AG., Halle/Saale Ruhrgas AG., Essen.
	M	Steinkohlen Elektrizitäts AG., Essen.
		Vereinigte Stahlwerke AG., Düsseldorf.
		Verkaufs-Vereinigung für Teerzeugnisse, Essen.
		Rheinisch-Westfälischer Beirat (Essen-Düsseldorf) der Deutschen Bank, Berlin.
Olfe, Hermann, Bergwerksdirek- tor, Bergassessor.	AC	Rheinisch-Westfälisches Elektrizitäts-Werk, Essen.
	MBM	Gelsenkirchener Bergwerks-AG., Gruppe Dortmund.
	MDB	Duisburger Margarine-Fabrik, Schmitz & Loh AG., Duis- burg.
von Oppenheim, Freiherr Walde- mar, Bankier.	Part	Pferdmenges & Co., Köln.
	CBD	Simons Mühlenwerke AG., Neuss.
	MBD	Allianz und Stuttgarter Verein, Versicherungs-AG., Berlin.
		Heinr. Auer Mühlenwerke AG., Köln-Deutz.
		Franz Clouth, Rheinische Gummiwarenfabrik AG., Köln- Nippes.
		Deutsch-Atlantische Telegraphen-Gesellschaft AG., Ber- lin.
		Deutsche Telephonwerke und Kabelindustrie AG., Berlin.
		Elektrische Licht- und Kraftanlagen AG., Berlin.
		Eschweiler Bergwerks-Verein, Kohlseid/Rhld.
		Felton & Guillaume Carlswerk AG., Köln-Mülheim.
		Hubertus Braunkohlen AG., Brüggen/Erft.
		Kölnische Hagel-Versicherungs-Gesellschaft, Köln.
		Pfalzische Mühlenwerke, Mannheim.
		Preussisch-Rheinische Dampfschiffahrts-Gesellschaft, Köln.
		Rheinische AG. für Braunkohlenhergah und Brikettfa- brikation, Köln.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
von Oppenheim, Freiherr Walde- mar, Bankier—Continued.	MBD	Schlesische Mühlenwerke AG., Burgweide. Stolberger Zing AG. für Bergbau und Hüttenbetrieb, Aachen. Gewerkschaft Victor, Castrop-Rauxel.
Pferdmenges, Robert, Dr.-----	O	Bankhaus Pferdmenges & Co., Köln.
	CBD	"Colonia" Köln, Versicherungs-AG., Köln. Gladbacher Feuerversicherungs-AG., M. Gladbach. Gladbacher Wollindustrie AG. vorm. L. Josten. Kabelwerk Rheydt AG., Rheydt. Kölnische Glas-Versicherungs-AG., Köln.
	DCBD	"Concordia" Lebensversicherungs AG., Köln. Klöckner-Werke AG., Duisburg. Kölnische Rückversicherungs-Gesellschaft, Köln. Schoeller'sche Kammgarnspinnerei Eitorf AG., Eitorf.
	MBD	Allgemeine Elektrizitäts-Gesellschaft, Berlin. Bergbau AG., Ewald-König Ludwig, Herten. Deutsche Centralbodenkredit AG., Berlin. Deutsche Kabelwerke AG., Berlin. Demag AG., Duisburg. Harpener Bergbau AG., Dortmund. Mitteldeutsche Stahlwerke AG., Berlin. "Nordstern" Allgemeine Versicherungs AG., Berlin. Rheinische Kunstseide AG., Krefeld. Rückversicherungs-AG. Colonia, Köln. Vereinigte Stahlwerke AG., Düsseldorf.
Pleiger, Paul, Generaldirektor, Bürgermeister.	CBM	Alpine Montan-AG., "Hermann Göring," Linz/Donau. Bergbau, AG., Salzgitter. Reichswerke AG., für Erzbergbau und Eisenhütten "Her- mann Göring," Berlin.
	CBD	Bau-AG., Negrelli, Wien. Buchtal AG., Keramische Betriebe der Reichswerke "Her- mann Göring," Oeslau bei Coburg. Preussengrube AG., Berlin. Rheinmetall-Borsig AG., Berlin. Stahl- und Temperguss-AG., vorm. Fischer-Traisen, Wien. Stahlwerk Braunschweig GmbH., Berlin. Steirische Guss-stahlwerke AG., Wien. Sudetenländische Bergbau-AG., Brüx. Westfälische Zeilstoff AG., Wildshausen. Wohnungs-AG. der Reichswerke "Hermann Göring," Braunschweig. Stahlbau GmbH. der Reichswerke "Herman Göring," Linz/Donau. Gesellschaft für Elektrometallurgie Dr. Paul Grünfeld, Berlin.
	CBD	Walter Voos, Lethmathe/Westfalen.
	DCBD	Eisenwerke Oberdonau GmbH., Linz.
	MBD	Bensol-Vertrieb der Reichswerke "Hermann Göring," GmbH., Wien Saargruben AG., Saarbrücken. Stahlbau GmbH. der Reichswerke "Hermann Göring," Linz/Donau. Vereinigte Elektrizitätswerke Westfalen AG., Dortmund. Wagner-Biro, AG., Wien. Gesellschaft für praktische Lagerstättenforschung.
	Con	Industrie- und Handelskammer, Bochum. Deutsche Reichsbank. Verein zur Wahrung der Schifffahrtsinteressen des West- deutschen Kanalgebietes.
	SPart	Kleinbahn Bossel-Blankenstein GmbH., Herbode.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Pleiger, Paul, Generaldirektor, Bürgermeister—Continued.	GauBM	(Gauwirtschaftsberater) Gauleitung Westfalen-süd der NSDAP.
	C	Reiehsvereinigung Kohle.
von Pless, Fürst, Haus Heinrich XVII., Dr., Fürstenstein/Schle- sien.	CBD	Waldenburger Bergwerke-AG., Waldenburg, Schlesien.
Plinke, O.-----	MBM	Rheininiseb-Westfälisches Kohlen-Syndikat, Essen.
Poensgen, Carl Rudolf, Kommer- sienrat.	DCBD	AG. der Gorresebeimer Glashüttenwerke vorm. Ford Heye, Düsseldorf.
	MBD	Mannesmannröhren-Werke AG., Düsseldorf. Feldmühle Papier- und Zellstoffwerke AG., Stettin. Industrierrains Düsseldorf-Reishols AG., Düsseldorf- Benrath.
	C	Industrie & Handelskammer, Düsseldorf.
Poensgen, Ernst, Generaldirektor, Dr.-Ing. e. h. (brother of Carl Rudolf and Helmuth).	CBM	Vereinigte Stahlwerke AG., Düsseldorf. Gewerkshaft Junkerrath/Rheiner.
	CBD	Siegener Eisenbahnbedarf AG., Siegen. Stahlwerke-Verband AG., Düsseldorf.
	DCBD	Gelsenberg Benzin AG., Gelsenkirehen. Gelsenkirehener Bergwerke AG., Essen. Ruhrstahl AG., Witten.
	MBD	Bandeisenwalzwerke AG., Dinslaken/Niederrhein. Bergbau- und Hütten AG., Friedrichshütte, Herdorf. Boehumer Verein für Guss-tahlfabrikation AG., Bochum. Deutsche Eisenwerke AG., Mülheim/Ruhr. Deutsche Röhrenwerke AG., Düsseldorf. Dortmund Hoerder Hüttenverein AG., Dortmund. Eisenwerk Gesellschaft Maximilianshütte, Rosenberg. Hannoversehe Maschinenbau AG. vorm H. Egestorft (Hanomag), Hannover-Linden. Hüttenwerke Siegerland AG., Siegen/Westfalen. Kali-Chemie AG., Berlin. Mitteldeutsche Stahlwerke AG., Riesa/Elbe. Salzbergwerk Nov Stassfurt, Berlin. August Thyssen-Hütte AG., Duisburg-Hamborn. Walther & Cie, AG., Köln-Deilbück. Westfälisch-Anhaltisebe Sprengstoff-AG., Chemisebe Fa- briken, Berlin. Westfälische Union AG. für Eisen- und Drahtindustrie, Hamm/Westfalen.
	S	Industrieabteilung der Wirtschaftskammer, Düsseldorf.
	Con	Reiehswirtschaftskammer.
Poensgen, Helmuth, Dr. phil.-----	MBM	Vereinigte Stahlwerke AG., Düsseldorf.
	CBD	Eisenhütte Holstein AG., Rendsburg. Gebr. Poensgen AG., Düsseldorf-Rath.
	MBD	Deutsches Gewerbehaus AG., Berlin. Dortmund-Hoerder Hüttenverein AG., Dortmund. Gelsenkirehener Bergwerke-AG., Essen. Gerling-Konzern, Lebensversicherungs-AG., Köln. Rheinische Bahngesellschaft AG., Düsseldorf. Rheinische Wohnstätten AG., Duisburg-Hamborn. Westdeutsche Wohnhäuser AG., Essen. Westfälische Transport AG., Dortmund.
	DCBM	Gewerkshaft Hürtherberg, Hermülheim.
	C	Verkehrsausschuss der Reiehsgruppe Industrie, Berlin.
	VP	Industrie- und Handelskammer, Düsseldorf.
Quandt, Günther, Dr.-Ing. e. h., Wehrwirtschaftsführer	CBM	Accumulatoren Fabrik AG., Berlin.
	CBD	Berlin-Erfurter Maschinensfabrik Henry Pels & Co., AG., Berlin. Coneordia Elektrizitäts AG., Dortmund. Deutsche Waffen und Munitionsfabriken AG., Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Quandt, Günther, Dr.-Ing. e. h., Wehrwirtschaftsführer—Con.	CBD	Deutsche Wollenwaren-Manufaktur AG., Grünberg/ Schlesien.
		Deutsches Tuchsyndikat GmbH., Berlin.
		Dominitwerke GmbH., Berlin.
	CBD	Dürener Metallwerke AG., Berlin.
		Friedrich Wilhelm Lebensversicherungs-AG., Berlin.
		Gerling-Konzern, Allgemeine Versicherungs-AG., Köln.
	DCBD	Gerling-Konzern, Rheinische Versicherungsgruppe AG., Köln.
		Hermann Herzog & Co. AG., Neugersdorf Suchsen Pertrix- Werke GmbH., Berlin.
		Bergbau-AG., Lothringen, Bochum-Gerthe.
	MBD	Busche-Jaeger, Ludenscheider Metallwerke AG., Luden- scheid/Westfalen.
		Gerling-Konzern, Lebensversicherungs-AG., Köln.
		Gerling-Konzern, Ruckversicherungs AG., Köln.
Rabes, Karl, Generaldirektor.....	CBMG	Mauser-Werke AG., Oberndorf/Neckar.
		Wintershall AG., Kassal.
		AG. für Verkehrswesen, Berlin.
	MBM	Allgemeine Elektrizitäts-Gesellschaft, Berlin.
		Deutsche Bank, Berlin.
		Deutsches Kalisyndikat, GmbH., Berlin.
	CBD	Kammgarnspinnerei Stöhr & Co. AG., Leipzig.
		Maschinenfabrik Sangerhausen AG., Sangerhausen.
		Vereinigte Kugellagerfabriken AG., Schweinfurt.
	DCBD	Westfalenbank AG., Bochum/Westfalen.
		Gewerkschaft Wintershall, Heringen.
		Gewerkschaft Victor Stickstoffwerke, Castrop-Rauxel.
Reinhart, Friedrich, Wehrwirt- schaftsführer.	CBD	Drahtseilerei Gustav Kocks AG., Mülheim/Ruhr.
		Bergbau und Hütten AG. Friedrichshütte, Herdorf.
		Seereederei "Frigga" AG., Hamburg.
	MBD	Concordia Bergbau AG., Oberhausen/Rhld.
		Deutsche Edelstahlwerke AG., Krefeld.
		Deutsche Eisenwerke AG., Mülheim/Ruhr.
	DCBD	Dortmund-Hoerder Hüttenverein AG., Dortmund.
		Eisen-und Stahl-AG., Wein.
		Hüttenwerke Siegerland AG., Siegen.
	CBD	Ruhrstahl AG., Witten/Ruhr.
		Stahlverein GmbH. für Bergbau und Industriewerke, Düsseldorf.
		August-Thyssen-Hütte AG., Duisburg-Hamborn.
	DCBD	Vereinigte Stahlwerke AG., Düsseldorf.
		Westdeutsche Wohnhauser AG., Düsseldorf.
		Braunkohlenwerke Leonhard AG., Zipsendorf.
	MBD	Buderus'sche Eisenwerke, Wetzlar.
		Commerce-und Privat-Bank Ag., Berlin.
		Deutsche Eisenbahn-Betriebs-Ges. AG., Berlin.
	DCBD	Deutsche Hypothekenbank, Meiningen.
		"Eintracht" Braunkohlenwerke und Brikett-fabriken, Welzow N/L.
		Else Bergbau AG., Grube Ilse, Senftenberg N/L.
	MBD	Henninger-Bräu AG., Frankfurt/Main.
		Hüttenwerke Kayers AG., Berlin.
		Salzdetfurth AG., Berlin.
	DCBD	Schultheiss-Brauerei AG., Berlin.
		Wilhelm Winkler AG., Halbau/Schles.
		Allgemeine Elektrizitäts-Gesellschaft, Berlin.
	MBD	Allianz und Stuttgarter Verein Versicherungs AG., Berlin.
		Deutsche Verkehrs-Kredit-Bank AG., Berlin.
		Deutsche Waffen-und Munitionsfabriken AG., Berlin.
	DCBD	Eletrische Licht-und Kraftanlagen AG., Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Reinhart, Friedrich, Wehrwirtschaftsführer—Continued.	CBD	Salamander AG., Kornwestheim bei Stuttgart. Sehering AG., Berlin. Treuhandverwaltung für das Deutsch-Niederländische Finanzabkommen, GmbH., Berlin.
	P	Industrie- und Handelskammer, Berlin.
	CBM	Berliner Börse, Abteilung Wertpapierbörse, Berlin.
	S	Wirtschaftsgruppe Privates Bankgewerbe.
	Con	Wirtschaftskammer Berlin-Brandenburg, Berlin. Deutsche Reichsbahn, Berlin. Deutsche Reichsbank, Berlin.
Ribbert, Moritz W. Kommerzienrat.	O	Moritz Ribbert & Co., Köln.
	MBD	Rheinische AG. für Braunkohlenbergbau und Brikettfabrikation, Köln.
Richter, Carl, Kaufmann-----	DCBD	Fürstenberger Porzellanfabrik AG., Fürstenberg/Weser. Nürnberger Bund, Grosseinkaufsverband GmbH., Nürnberg.
	MBD	A. Riebeck'sche Montanwerke AG., Halle/Saale.
Ritter, Albert, Bergassessor a. D., Direktor.	MBM	Deutsche Erdöl AG., Berlin.
		Verein für Bergbauliche Interessen, Essen.
		Westfälische Berggewerkschaftskasse, Bochum.
	DCBD	Stöck & Fischer GmbH., Mainz.
		Stöck & Fischer GmbH., Mannheim.
	MBD	"Briko" Brikett- und Kohlenhandel AG., Leipzig Compes & Cie., AG., Düsseldorf.
		Deutsche Kohlenhandelsgesellschaft Lüders, Meentzen & Co., Bremen.
		Josef Gautsch AG., München.
		Gebhardt & König-Deutsche Schachtbau AG., Nordhausen.
		Gesellschaft für Kohlentechnik, Dortmund.
	MBD	Gottfr. Kleinschmidt GmbH., Frankfurt/Main.
		Kohlenhandelsgesellschaft "Mark," Siepmann, Schrader & Co., Hagen.
		Kohlen-Kontor Weyhenmeyer & Co., Mannheim.
		"Mabag" Maschinen- und Apparatebau AG., Nordhausen.
		Mitteldeutsche Kohlenhandels- u. Reedereigesellschaft, Kühlen & Co., Essen.
Rixföhren, Rudolf, Direktor-----		"Nova" Oel- und Brennstoffgesellschaft AG., Wien.
		Carl Rübsam, Wachwarenfabrik AG., Fulda.
		"Vaucefa" Vereinigte Chemische Fabriken AG., Brandenburg/Havel.
		Westfälisches Kohlen-Kontor, Naht. Emschermann & Co., Hamburg.
	MBM	Rheinisch-Westfälisches Kohlen Syndikat, Essen.
	MBD	Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
		Lehnkering & Co. AG., Duisburg.
		Münsterische Schifffahrts- u. Lagerhaus AG., Dortmund.
Robert, Johannes, Generaldirektor.		Westfälische Transport AG., Dortmund.
	MBM	Schlesische Bergwerks- und Hütten-AG., Beuthen.
	MBD	Schlesische AG. für Bergbau und Zinkhüttenbetrieb, Kattowitz/Oberschlesien.
	CBD	Oberschlesisches Steinkohlensyndikat GmbH., Gleiwitz.
	MBD	Lignose Springstoffwerke GmbH., Berlin.
		Ostdeutsche Holzverwertungs-AG., Beuthen/Obersehl.
		"Sachtleben" AG. für Bergbau und Chemische Industrie, Köln.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Röchling, Herman, Kommerzienrat, Dr.-Ing. Dr. rer. pol. h. c., Wehrwirtschaftsführer.	CBM	Röchling'sche Eisen- und Stahlwerke GmbH., Völklingen.
	Part	Gebr. Röchling Eisenhandelsgesellschaft, Ludwigshafen.
	CBD	Allgemeine Baugenossenschaft 1904, Völklingen Hallesche Salzwerke und Chemische Fabrik Kulbe AG., Calbe/Saale.
		Saarglas AG., Völklingen-Fenne/Saar.
		Stahlwerke Röchling-Buderus AG., Wetzlar.
	MBD	Brown, Boveri & Cie., AG., Mannheim.
		Buderus'sche Eisenwerke AG., Wetzlar.
		Doggererz-AG., Blumberg/ Baden.
		Eisenwerk Gesellschaft Maximilianshütte, Rosenberg, Oberpfalz.
		Heinrich Lanz AG., Mannheim.
		Saargruben AG., Saarbrücken.
		Continental Elektricitäts-Union AG., Basel.
	Con	Deutsche Reichsbank.
		Wirtschaftsgruppe Eisenshaffende Industrie.
		Wirtschaftskammer für den Bezirk Saarland-Pfals.
Roehnert, Hellmuth, Generaldirektor.	M	Landes-Ausschuss für das Saarland Dresdner Bank, Berlin.
	CBM	Rheinmetall-Borsig AG., Berlin.
	MBM	AG. Reichswerke "Hermann Göring," Berlin.
		Busch-Jaeger, Lüdenscheider Metallwerke AG., Lüdenscheid.
	CBD	Junkers Flugzeug- und -Motorenwerke AG., Dessau.
		Torpedo Werke AG., Frankfurt/Main.
	DCBD	Alexanderwerk A. von der Nahmer AG., Remscheid.
		Deutsche Wollwaren-Manufaktur AG. Grünberg, Schlesien.
		Hermann Herzog & Co. AG., Neugersdorf/Sachsen.
		Sachsische Metallwarenfabrik August Wellner Söhne AG., Aue/Sachsen.
		Steyr-Daimler-Puch AG., Wien.
	MBD	Accumulatoren-Fabrik (Afa), Berlin.
		Alpine Montan AG. "Herman Göring," Linz-Donau.
		Berliner Kraft- und Licht (Bewag)-AG., Berlin.
		Dresdner Bank, Berlin.
Rohrer, Herbert, Kaufmann, Dr. rer. pol.		Friedrich Wilhelm Lebensversicherungs-AG., Berlin.
		Hardy & Co. GmbH., Berlin.
		Wohnungs-AG. der Reichswerke "Herman Göring," Braunschweig.
	CBD	Fahrzeug- und Motorenwerk GmbH., vorm. Maschinenbau Linke-Hofmann, Breslau.
		Magdeburger Werkzeugmaschinenfabrik GmbH., Magdeburg.
	M	Landesausschuss für Westfalen der Dresdner Bank, Berlin.
	MBM	Schering AG., Berlin.
		Kokswerke & Chemische Fabriken, Berlin.
	DCBD	Voigtländer & Söhn AG., Braunschweig.
	MBD	Borsig-Kokswerke AG., Hindenburg/OS.
		W. Spindler AG., Berlin-Spindlersfeld.
	Con	Industrie- und Handelskammer zu Berlin.
		Wirtschaftskammer Berlin-Brandenburg.
	MBM	Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
	MBD	Seereederei "Frigga" AG., Hamburg.
Russell, E.-----	DCBD	A. Riebeck'sche Montanwerke AG., Halle/Saale.
	MBM	f. G. Farbenindustrie AG., Frankfurt/Main.
	CBM	A. Riebeck'sche Montanwerke AG., Halle/Saale.
	BM	Ammoniakwerke Merseburg GmbH., Leuna Werke/ Kreis Merseburg.
	CBD	Deutsche Grube AG., Hall.
Schacht, Fritz, Grosskaufmann.-----		
Scharf, Otto, Diplom-Bergingenieur, Dr.		

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Scharf, Otto, Diplom-Bergingenieur, Dr.—Continued.	MBD	Erzgesellschaft zur Erschliessung von Nichteisenmetallen mbH., Berlin.
Schering Richard, Kommerzienrat.	MBD	Rheinische Stahlwerke AG., Essen.
Schippel, Hans, Dr.-----	MBM	Schering AG., Berlin.
	CBD	Dresdner Bank, Berlin.
		"Frankona" Rück- und Mitversicherungs-AG., Berlin.
		Maschinenbau und Bahnbedarf AG., vorm. Orenstein & Koppel, Berlin.
	DCBD	Miag Mühlenbau und Industrie AG., Braunschweig.
		Deutsch-Asiatische Bank, Berlin-Shanghai.
		Deutsch-Atlantische Telegraphengesellschaft, Berlin.
		Koehlmann-Werke AG., Frankfurt/Oder.
		Mansfeld AG. f. Bergbau- und Hüttenbetrieb, Eiseleben.
		Schultheiss-Brauerei AG., Berlin.
	MBD	Bayerische Motorenwerke AG., München.
		Berliner Kraft- und Licht (Bewag) AG., Berlin.
		Brown, Boweri & Cie. AG., Mannheim.
		Daimler-Benz AG., Stuttgart.
		Deutsche Continental Gas AG., Dessau.
		Deutsche Erdöl AG., Berlin.
		Klöckner-Werke AG., Duisburg.
		Norddeutsche Hafeindustrie AG., Berlin.
		Rabbethge & Giesecke AG., Kleinwanzleben.
		Rheinisch-Westfälische Boden-Creditbank, Köln.
		Rheinische Hypothekenbank, Mannheim.
		Wanderer-Werke AG., Siegmarschönau.
	MBM	Russland-Ausschuss der Deutschen Wirtschaft.
Schmid, Karl Christian, Regierungspräsident a. D.	Con	Industrie- und Handelskammer, Berlin.
	MBD	Bergbau AG., Ewald—König Ludwig, Herten, Westfalen
		Süddeutsche Eisenbahn-Gesellschaft, Darmstadt.
Schmidt, Guido, Dr.-----	DMBM	Rheinische-Westfälisches Elektrizitätswerk AG., Essen.
		Reichswerke AG. für Erzbergbau und Eisenhütten "Hermann Göring," Berlin.
	CBD	Eisen- und Stahl-AG., Wien.
	MBD	Bau-AG., "Negrelli," Wien.
		Bergbahn AG. St. Anton am Arlberg.
Schmidt, Rüdiger, Bergwerksdirektor.	MBM	Harpener Bergbau AG., Dortmund.
	CBD	C. G. Maier AG. für Schifffahrt, Spedition und Commission, Mannheim.
	MBD	Dortmunder Stadtwerke AG., Dortmund.
		Mainkette Reederei und Kohlenvertriebs-AG., Dortmund.
		J. Pohlig AG., Köln.
		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
		Ruhrwohnungsbau AG., Dortmund.
		Vereinigte Kesselwerke AG., Düsseldorf.
	PBD	Harpener Kohlenhandels AG., Basel.
	C	Landesausschuss Westfalen der Dresdner Bank, Berlin.
Schmitt, Kurt, Preussischer Staatsrat, Reichs- und Staatsminister a. D., Dr. jur., Wehrwirtschaftsführer.	CBM	Münchener Rückversicherungsgesellschaft, München.
	CBD	Allgemeine Elektrizitäts-Gesellschaft (AEG), Berlin.
		Allianz und Stuttgarter Lebensversicherungsbank AG., Berlin.
		Berlinische Lebensversicherungsgesellschaft AG., Berlin.
		Deutsche Continental-Gas-Gesellschaft, Dessau.
	DCBD	Allianz- und Stuttgarter Verein Versicherungs AG., Berlin.
		La Pace, S. A. Assicurazioni e Riassicurazioni, Mailand.
		Wiener Allianz, Versicherungs-AG., Wien.
	MBD	Aktienbrauerei zum Löwenbräu, München.
		Bayerische Versicherungsbank AG., München.
		Essener Steinkohlenbergwerke AG., Essen.
		Hammonia Allgemeine Versicherungs-AG., Hamburg.
		Karlsruher Versicherungs-AG., Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Schmitt, Kurt, Preussischer Staatsrat, Reichs- und Staatsminister a. D., Dr. jur., Wehrwirtschaftsführer—Continued.	MBM	Pilot Reinsurance Company of New York, New York.
	CBM	Gewerkschaft Westfalen, Ahlen.
	M	Zentralausschuss der Deutschen Reichsbank, Berlin.
	MBD	Kraft Versicherungs-AC., Berlin.
	CBM	I. G. Farbenindustrie AG., Frankfurt/Main.
	BM	Ammoniakwerk Merseburg GmbH., Leunawerke, Kreis Merseburg.
	CBD	AG, für Stickstoff dünger, Knapsack, Kr. Köln.
		Deutsche Celluloid-Fabrik AG., Eilenburg.
		Deutsche Länderbank AG., Berlin.
		Dynamit AG. vorm. Alfred Nobel & Co., Troisdorf.
Schmitz, Hermann, Geh. Kommerzienrat, Dr. jur. h. e. MdR., Wehrwirtschaftsführer.	DCBD	Rheinische Stahlwerke AG., Essen.
		A. Riebeck'sche Montanwerke AG., Halle/Saale.
		Wolff & Co., KGaA., Walsrode.
		Deutsche Industriebank, Berlin.
	MBD	Vereinigte Stahlwerke AG., Düsseldorf.
		Allianz und Stuttgarter Verein Versicherungs AG., Berlin.
		American I. G. Chemical Corporation, New York.
		Bank für internationalen Zahlungsausgleich, Basel.
		Deutsche Bank, Berlin.
		Kalle & Co., AG., Wiesbaden-Biebrich.
Schramm, Curt, Rechtsanwalt und Notar.	DCBD	Metallgesellschaft AG., Frankfurt/Main.
		Norddeutsche Affinerie, Hamburg.
		Norsk-Hydro-Elektrisk Kvaestofaktieselskabet, Oslo.
		Reichs-Kredit-Gesellschaft AG., Berlin.
	Con M	Rheinische Gummi- und Celluloid-Fabrik, Mannheim-Neckarau.
		Stickstoff-Syndikat, GmbH., Berlin.
		Deutsche Reichsbank, Berlin.
		Akademie für Deutsches Recht, Berlin.
		Siebener Ausschuss der deutschen Golddiskontbank, Berlin.
		Währungsausschuss bei der Deutschen Reichsbank, Berlin.
Schreiber, Albert, Direktor, Dr.-Ing., Dr. phil. h. e., Wehrwirtschaftsführer.	MBM	A. Riebeck'sche Montanwerke AG., Halle/Saale.
	DCBD	Deutsche Grube bei Bitterfeld AG., Halle/Saale.
	MBM	Rheinische AG. für Braunkohlenbergbau und Brikettfabrikation, Köln.
		Rheinisches Elektrizitätswerk im Braunkohlenrevier AG., Köln.
	DCBD	Allgemeine Rohrleitung AG., Düsseldorf.
		AG. für Deutsche Elektrizitätswirtschaft, Berlin.
	S	Gussstahlwerk Wittmann, Hagen/Haspe.
		Kraftwerk Zukunft AG., Eschweiler/Aachen.
		Bezirksgruppe Rheinland der Wigr. Elektrizitätsversorgung, Berlin.
		Maschinentechnischer Ausschuss der Wigr. Elektrizitätsversorgung, Berlin.
von Schröder, Kurt, Freiherr, Generalkonsul.	Con	Landesplanungsgemeinschaft Rheinland, Köln.
		Wigr. Elektrizitätsversorgung, Berlin.
	Part CBD	Wirtschaftskammer Rheinland, Köln.
		Bankhaus J. H. Stein, Köln.
	DCBD	Deutsche Verkehrs-Kredit-Bank AG., Berlin.
		Felten & Guillaume Carlsberg AG., Köln-Mulheim.
		Mitropa Mitteleuropäische Schlafwagen- und Speisewagen AG, Berlin.
		Rheinische Zellwolle AG., Siegburg.
	DCBD	Adlerwerke vormals Heinrich Kleyer AG., Frankfurt/Main.
		Boswau & Knauer AG., Berlin.
Rheinische AG. für Braunkohlenbergbau und Brikettfabrikation, Köln.		

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
von Schröder, Kurt, Freiherr, Generalkonsul—Continued.	MBD	Braunkohle-Benzin AG., Berlin.
		Colonia Kölnische Versicherungs-AG., Köln.
		Concordia Lebensversicherungs-AG., Köln.
		Dynamit AG., vormals Alfred Nobel & Co., Troisdorf.
		Gemeinnützige AG., für Wohnungsbau, Köln.
		Guano-Werke AG., Hamburg.
		Harpener Bergbau AG., Dortmund.
		Kölnische Rückversicherungs-Gesellschaft, Köln.
		C. Lorenz AG., Berlin.
		Mitteldeutsche Stahlwerke AG., Riesa-Elbe.
	P Con	Mix & Genest AG., Berlin.
		Rheinisch-Westfälische Industriebeteiligungs-AG., Mülheim/Ruhr.
		Standard Elektrizitätswerke AG., Berlin.
	C S	Union Rheinische Braunkohlenkraftstoff Ag., Köln.
		Vereinigte Glanzstoff-Fabrik AG., Wuppertal-Barmen.
		Industrie- und Handelskammer, Köln.
	MBM	Deutsche Reichsbahn, Berlin.
		Deutsche Reichsbank, Berlin.
	BM	Reichswirtschaftskammer, Berlin.
		Aussenhandelsstelle für das Rheinland.
Schulte, Ernst.....	MBM	Wirtschaftskammer Rheinland Köln, Fachgruppe Privatbankiers, in der Wigru, Privates Bankgewerbe.
		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
Sempell, Oakar, Dr. jur.....	MBM	Siemens & Halske AG., Berlin.
		Siemens-Schuckertwerke AG., Berlin.
von Siemens, Carl F., Dr.-Ing. e. h., Dr. rer. nat. h. e., "Der Heinenhof" bei Potsdam.	CBD	Vereinigte Stahlwerke AG., Düsseldorf.
		Stahlverein GmbH., für Bergbau und Industriewerte, Berlin.
	MBD	Saar AG., St. Ingbert.
		Gebr. Böhler & Co. AG., Wien.
	MBD	Deutsches Gewerbehaus AG., Berlin.
		Dortmund-Hoerder Hüttenverein AG., Dortmund.
	MBD	Essener Steinkohlenbergwerke AG., Essen.
		Gelsenberg-Benzin AG., Gelsenkirchen.
	MBD	Gelsenkirchener Bergwerks-AG., Essen.
		Industriefinanzierungs-AG., Ost, Berlin.
	MBD	Mitteldeutsche Stahlwerke AG., Berlin.
		Siemens & Halske AG., Berlin.
	MBD	Siemens-Planawerke AG. für Kohlefabrikate, Berlin.
		Siemens-Schuckertwerke AG., Berlin.
	MBD	Mannesmannröhren-Werke Düsseldorf.
		Vereinigte Stahlwerke AG., Düsseldorf.
	MBD	Mülheimer Bergwerks-Verein, Essen
		Glaswerke Ruhr AG., Essen.
Stahl, Rudolph, Genraldirektor, Gerichtsassessor a. D., Wehr- wirtschaftsführer.	MBD	Ruhröl AG., Mülheim.
		Westdeutsche Terrain AG., Essen.
	CBM	Salzdetfurth-Konzern, Berlin.
		Allgemeine Deutsche Credit-Anstalt, Leipzig.
	MBD	Demag AG., Duisburg.
		Deutsche Bank, Berlin.
	MBD	Deutsche Gold- und Silber-Scheideanstalt, vorm. Roesler, Frankfurt/Main.
		Gerling-Konzern, Köln.
	MBD	Preussische Bergwerks- und Hütten AG., Berlin.
		Stolberger Zink AG. für Bergbau und Hüttenbetrieb, Aachen.
	MBD	Westfälisch-Anhaltische Springstoff-AG., Berlin, sowie bei einer Anzahl Tochtergesellschaften des Salzdetfurth-Konzerns.
	MBD	
	MBD	
	MBD	
	MBD	

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Stahl, Rudolph, Generaldirektor, Gerichtsassessor a. D., Wehr- wirtschaftsführer—Continued.	Con	Deutsche Reichsbank, Berlin.
Stalman, Gerhard, Dr. phil.-----	DS	Reichswirtschaftskammer., Berlin.
	MBM	Reichsgruppe Industrie.
	DCBD	Schering AG., Berlin.
von Stein, Heinrich, Bankier, Dr. h.e.	Part	W. Spindler AG., Berlin.
	CBD	Bankhaus J. H. Stein, Köln.
	DCBD	Persische Teppich Gesellschaft AG., Köln.
		Mitteldeutsche Stahlwerke AG., Berlin.
		Rheinisch-Westfälische "Revision" Treuhand AG., Köln.
	MBD	AG. für Energiewirtschaft, Berlin.
		Commerz- und Privat-Bank AG., Hamburg-Berlin.
		Concordia Lebensversicherungs-AG., Köln.
		Deutsche Schiffsbeleihungsbank AG., Hamburg.
		Eisenwerk-Gesellschaft Maximilianhütte, Rosenberg, Ober- pfalz.
		Elektrizitäts-AG., vorm. W. Lahmeyer & Co., Frankfurt/ Main.
		Essener Steinkohlenbergwerke AG., Essen.
		Hansa-Mühle AG., Hamburg.
		Hotelbetriebs-AG. (Bristol, Kaiserhof, Atlantic, Central- hotel, Baltic), Berlin.
		Klöckner-Werke AG., Raxel.
		Kölnische Glasversicherungs-AG., Köln.
		Rasselsteiner Eisenwerke-Gesellschaft AG., Rasselstein Neuwied.
		Rheinische Energie AG., "Rhenag," Köln.
		Stolberger Zink AG. für Bergbau und Hüttenbetrieb, Aachen.
		Vereinigte Stahlwerke AG., Düsseldorf.
		Waggon- und Maschinenfabrik AG. vorm. Busch, Bautzen.
von Stein, Johann Heinrich, Ban- kier, Kgl. Norwegischer Konsul.	Part	Bankhaus J. H. Stein, Köln.
	MBM	Rheinisch-Westfälische Börse, Düsseldorf.
	CBD	Deutsche Motor Service AG., Berlin.
	MBD	Allianz und Stuttgarter Verein Versicherungen AG., Berlin.
		Dürener Bank, Düren.
		Johs. Girmes & Co. AG., Oedt/Rhld.
		Kölner Kassenverein AG., Köln
		Losenhausenwerk Düsseldorf Maschinenbau AG., Düsseldorf.
		Neuwalzwerk AG., Böisperde, Böisperde/Westf.
		Papler Karosseriewerk GmbH., Köln.
		Vereinigte Seidenwebereien AG., Kerfeld.
		Zoologischer Garten AG., Köln.
Steinbrinck, Otto, Direktor, Kor- vettenkapitän a. D.	MBM	August-Thyssen-Hütte Gewerkschaft, Mülheim.
	DCBD	Rheinisch-Westfälische Industrie-Beteiligungs-AG., Mül- heim/Ruhr
	MBD	Braunkohle-Benzin AG., Berlin.
		Rheinisch-Westfälisches Elektrizitätswerk AG., Essen.
Stinnes, Hugo, Kaufmann-----	Con	Deutsche Reichsbahn., Berlin.
	CBD	Atlantic Hotel AG., Hamburg.
		Glaswerke Ruhr AG., Essen.
		Wilhelm Greve AG., Berlin.
		Hamburger Hof AG., Hamburg.
		Hotel Nassauer Hof AG., Wiesbaden.
		Kohlen-Import and Poseidon Schifffahrt, AG., Königsberg.
		"Midgard," Deutsche Seeverkehrs-AG., Nordenham.
		Mülheimer Bergwerks-Verein, Essen.
		Norddeutsche Buchdruckerei und Verlagsanstalt AG., Berlin.
		Norddeutsche Oelmühlenwerke AG., Hamburg-Altona.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Stinnes, Hugo, Kaufmann—Con.	CBD	Preussisch-Rheinische Dampfschiffahrts-Gesellschaft, Köln. Ruhröl AG., Mülheim.
		Hugo Stinnes Reederei AG., Hamburg.
		Vereinigte Berliner Kohlenhändler-AG., Berlin.
		L. Weil & Reinhardt AG., Mannheim.
Stutz, G. Taege, Wilhelm, Bergwerksdirektor.	DCBD	Atlas-Werke AG., Bremen.
		Feldmühle Papier- und Zellstoffwerke AG., Odermünde bei Stettin.
	MBD	Dampfschiffahrts-Gesellschaft für den Nieder- und Mittelrhein, Düsseldorf.
		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
Talbot, Georg, Geheimer Kommerzienrat.	MBM	Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
	MBM	Bergbau-AG., Lothringen, Bochum-Gerthe.
	CBD	Eisen-AG., Lothringen, Hanover.
	MBD	Eisen- und Hüttenwerke AG., Bochum.
Tengelmann, Ernst, Generaldirektor, Dr.-Ing. e. h., Wehrwirtschaftsführer.		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
	Part	Waggonfabrik Talbot, Aachen.
	MBM	Deutsche Wagenbau-Vereinigung.
		Versicherungs-AG., "Globus," Wien.
	CBD	Dessauer Werke für Zucker und chemische Industrie AG., Dessau.
	MBD	Aachener Kleinbahngesellschaft, Aachen.
		Aachener Rückversicherungs-AG., Aachen.
		Aachener und Münchener Feuer-Versicherungs-Gesellschaft, Aachen.
		Basalt-AG., Linz/Rhein.
		Dresdner Bank, Berlin.
		Düsseldorfer Waggonfabrik AG., Düsseldorf.
		Garbe, Lahmeyer & Co. AG., Aachen.
		Gemeinnützige Baugesellschaft, Aachen.
		Rhein, Electricitäts- und Kleinbahnen AG., Aachen.
		Thüringia Versicherungs-AG., Erfurt.
		Vereinigte Stahlwerke AG., Düsseldorf.
		Waggon-Fabrik Uerdingen AG., Krefeld-Uerdingen.
	M	Landes-Ausschuss für das Rheinland, Köln-Aachen, der Dresdner Bank, Berlin.
	CBM	Essener Steinkohlenbergwerke AG., Essen.
	P	Industrie- und Handelskammer zu Essen.
	C	Aussenhandelsstelle für Nordwestfalen und das Ruhrgebiet.
	CBD	Chemische Werke Essener Steinkohle AG., Essen.
		Hubertsmühle AG., Finowfurt.
	DCBD	Harpener Bergbau AG., Dortmund.
		Hochtief AG., für Hoch- und Tiefbauten, Essen.
	MBD	Benzol-Verband GmbH., Bochum.
		Deutsche Tafelglas AG., Fürth/Bayern.
		Dynamit AG., vorm. Alfred Nobel & Co., Troisdorf/Köln.
		Gelsenkirchener Bergwerks-AG., Essen.
		Hochofenwerk Lübeck AG., Lübeck.
		Mitteldutsche Stahlwerke AG., Riesa/Elbe.
		Nordische Holzeinfuhr AG., Berlin.
		Rheinisch-Westfälisches Elektrizitätswerk AG., Essen.
		Rheinisch-Westfälisches Kohlen-Syndikat, Essen.
		Ruhrbenzin AG., Oberhausen-Holten.
		Ruhrchemie AG., Essen.
		Siegner Maschinenbau AG., Siegen.
		Wasserkwerk für das nördliche westfälische Kohlenrevier, Gelsenkirchen.
	Con	Ruhrgas AG., Essen.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Tengelmann, Wilhelm, Generaldirektor, Bergassessor a. D., Wehrwirtschaftsführer.	CBM	Bergwerksgesellschaft Hibernia AG., Herne/Westfalen.
	MBM	Deutsche Handelskammer für Jugoslawien, Berlin. Ruhrverband Essen, Essen. Verein Deutscher Bergleute, Berlin. Verein Deutscher Ingenieure, Berlin. Westfälische Berggewerkschaftskasse, Bochum.
	CBD	Badische AG., für Rheinschiffahrt und Seetransport, Mannheim. Bensol-Verband GmbH., Bochum. Hydrierwerk Scholven AG., Gelsenkirchen-Buer. Mannheimer Lagerhaus-Gesellschaft, Mannheim. Oberbayerische AG., für Kohlenbergbau, München. Rheinschiffahrt AG. vorm. Fendel, Mannheim. W. Ruhenstroth GmbH., Gütersloh. M. Stromeier Lagerhausgesellschaft GmbH., Wien. Kohlen- und Brikettwerke AG., Basel. Oberheinische Reederei u. Kohlenhandels AG., Basel. M. Stromeier AG., Basel. Deutsche Kohlenhandelsgesellschaft Lüders, Meentzen & Co., Bremen. Henschel Flugmotorenbau GmbH., Basel. M. Stromeier Kohlenhandelsgesellschaft GmbH., Mannheim.
	DCBD	Westf. Kohlenverkaufsgesellschaft Vollrath, Wech & Co., Berlin. Chemische Werke Hüls GmbH., Marl. Deutsche Industriebank, Berlin. Henkel & Cie., AG., Düsseldorf. Henschel Flugzeug-Werke AG., Berlin. Rheinisch-Westfälisches Kohlen-Syndikat, Essen. Steenkolen-Hendelsvereniging, Utrecht. Stickstoffwerke Ostmark AG., Berlin. Wiener Lokomotiv-Fabrik AG., Wien. Henkel & Cie., GmbH., Düsseldorf N. V. Maatschappij Algemeen Beheer Utrecht (Zechen-Vereinigung "Malbe").
	MBD	Bremen-Mindener Schiffahrt AG., Bremen. Commerz-und Privat-Bank AG., Hamburg-Berlin. Deschimag—Deutsche Schiff- und Maschinenbau AG., Bremen. Klein, Schanzlin & Becker AG., Frankenthal/Pfalz. Bernward Leineweber KG., Berlin. Preussische Bergwerks- und Hütten-AG., Berlin. Rhenag, Rheinisch Energie AG., Köln-Deutz. Rütgerswerke AG., Berlin. Ruhragas AG., Essen. Saargruben-AG., Saarbrücken. Steag—Steinkohlen Elektrizitäts-AG., Essen. Thüringer Gasgesellschaft, Leipzig. Wasserwerk für nördliche westfälische Kohlenrevier, Gelsenkirchen. Gesellschaft der Freunde und Förderer des Rheinischen Landesmuseums, Bonn. Henschel Lokomotiv-Fabrik, Kassel. Kaiser-Wilhelm-Institut für Kohlenforschung, Mülheim-Ruhr. Rhenus AG., Basel. Staandaard Transport Mij. N. V., Rotterdam. Stickstoff-Syndikat GmbH., Berlin.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Tengelmann, Wilhelm, Generaldirektor, Bergassessor a. D., Wehrwirtschaftsführer—Continued.	Con	Henschel & Sohn GmbH., Kassel. Industrie- und Handelskammer, Bochum. Industrie- und Handelskammer, Münster. Montan-Revisions-GmbH., Essen. Reismann-Grone GmbH., Essen.
	M	Wirtschaftsgruppe Kraftstoffindustrie, Berlin. Akademie für deutsches Recht, Berlin. Arbeitskammer Essen Essen (Arbeitsgemeinschaft Steinkohlenbergbau). Arbeitskammer Westfalen-Nord, Münster. Deutsche Handelskammer in der Schweiz, Zürich, Schweiz. Deutsche Industriebank, Berlin (Prüfungsausschuss). Deutsches Museum von Meisterwerken der Naturwissenschaft und Technik, München (Vorstandsrat). Emscherergenossenschaft, Essen. Haus der Deutschen Kunst, München (Ehrenausschuss). Haus der Deutschen Technik, München (Patenschaftsträger). Haus der Technik e.V., Essen (Vorstandsrat). Henkel & Cie., AG., Düsseldorf (Personal-ausschuss des Aufsichtsrates). Henschel-Konzern (Mitglied des Personalausschusses und Reorganisator). Reichsausschuss für Leistungsteigerung, Berlin. Reichsgemeinschaft der technisch-wissenschaftlichen Arbeit (RTA), Berlin (Senat). Reichsgruppe Industrie, Berlin (Ausschuss für Qualitätsarbeit). Reichswirtschaftskammer, Berlin. Rheinische Westfälisches Kohlen-Syndikat, Essen (Expert committees on Management, Coal, Self-Consumption, and authorized agent to exercise the stock rights of Hibernia in the General Committee of the RWKS, and representative of the membership committee). Ruhrgas AG., Essen (Labor & Finance Committee of shareholders).
	DCBM	Deutsche Ammoniak-Verkaufs-Vereinigung GmbH., Bochum (Mitgliederversammlung "Dachvertrag" und Bochumer Verbände).
Tgahrt, Erich, Generaldirektor....	DC	Verein für die bergbaulichen Interessen, Essen.
	P	Sektion VI (Transport, Lagerung, Verteilung) des 3, Welt-Erdöl-Kongress, Berlin.
	C	Geschäftsausschuss Benzol-Verband GmbH., Bochum. Kuratorium der Technisch-Wissenschaftlichen Lehrmittelzentrale, Berlin. Reichsinstitut für Berufsausbildung in Handel und Gewerbe, Berlin.
Tgahrt, Erich, Generaldirektor...	CBM	Hoesch AG., Dortmund.
	CBD	Schniedag AG., Hagen/Westfalen. Eisen und Metall AG., Essen. Trierer Walzwerk AG., Trier.
	DCBD	Rheinisch-Westfälische Kalkwerke, Dornap.
Tgahrt, Erich, Generaldirektor...	MBD	Deutsche Bank, Berlin. Gerling-Konzern Lebensversicherungs-AG., Köln. F. Kuppersbusch & Söhne AG., Gelsenkirchen. Metallgesellschaft AG., Frankfurt/Main.
	MBD	Montan-Union AG., Binningen/Basel. Rheinisch-Westfälisches Kohlen-Syndikat AG., Essen. Secreederei "Frigga" AG., Hamburg.
	MBD	Stahlwerks-Verband AG., Düsseldorf. Westdeutsche Kalk- und Portlandzementwerke AG., Köln Westfälische Transport AG., Dortmund.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

Name	Position	Enterprise
Vögler, Albert, Generaldirektor, Dr.-Ing. e. h., Dr. phil. h. c. Dr. Mont. h. c.	CBD	AG. für Energiewirtschaft, Berlin.
		Bandeisenwalzwerke AG., Dinslaken.
		Bochumer Verein für Guss-stahlfabrikation AG., Bochum.
		Gebr. Böhler & Co. AG., Berlin.
		Braunkohlen- und Brissetwerke, Roddergrube AG., Brühl.
		Deutsche Edelstahlwerke AG., Krefeld.
		Deutsche Röhrenwerke AG., Düsseldorf.
		Dortmund-Hoerder Huttenverein AG., Dortmund.
		Elektrizitäts-AG. vormals Schuckert & Co., Nürnberg.
		Gelsenkirchener Bergwerks-AG., Essen.
		Hannoversche Maschinenbau AG. vormals Georg Egestorff (Hanomag), Hannover-Linden.
		Hüttenwerke Siegerland AG., Siegen/Westfalen.
		Rheinisch-Westfälisches Elektrizitätswerk AG., Essen.
		Rheinische AG. für Braunkohlenbergbau und Brikett- fabrikation, Köln.
		Ruhrgas AG., Essen.
		Ruhrstahl AG., Witten/Ruhr.
		Westfälische Union AG. für Eisen- und Drahtindustrie, Hamm/Westfalen.
	DCBD	Harpener Bergbau-AG., Dortmund.
		Vereinigte Stahlwerke AG., Düsseldorf.
Vögler, Eugen, Regierungsbau- meister (Brother of Albert), Wehrwirtschaftsführer.	MBD	Demag AG., Duisburg.
		Deutsche Edelstahlwerke AG., Bochum.
		Gelsenberg Benzin AG., Gelsenkirchen.
		Reichswerke AG. für Erzbergbau und Eisenhütten "Hermann Göring," Linz.
		Siemens & Halske AG., Berlin.
		Siemens-Schuckertwerke AG., Berlin.
		Süddeutsche Eisenbahn Gesellschaft, Darmstadt.
		Henschel & Sohn GmbH., Kassel.
		Hochtief AG. für Hoch- und Tiefbauten, Essen.
		National-Bank AG., Essen.
Waechter, Franz Generaldirek- tor, Bergassessor a. D., Dr.-Ing.	Con	Süddeutsche Eisenbahn-Gesellschaft, Darmstadt.
	MBM	Glückauf-Bau-AG., Berlin.
	MBD	Rheinische Heimstätte GmbH., Essen.
		Reichswirtschaftskammer, Berlin.
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	MBM	Preussische Bergwerks- und Hütten-AG., Berlin.
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		Saar-Ferngas AG., Saarbrücken.
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		Hoesch AG., Dortmund.
		Phoenix-Branerei GmbH., Essen, Ruhr.
		Schiess AG., Düsseldorf.
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	MBM	Gewerkschaft Walter, Essen.

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

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	MBD	Ruhr AG. für Finanz- und Treuhandgeschäfte, Essen. Gewerkschaft Walter, Essen.
von Waldthausen, Wilhelm, Regie- rungsassessor a.D., Bankdirektor a.D., Dr. jur.	CBD	Deutsche Erdöl AG., Berlin.
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		Rheinisch-Westfälisches Elektrizitätswerk AG., Essen.
		Bergbau AG., Ewald—König Ludwig, Herten/Westfalen.
		Dresdner Allgemeine Versicherungsgesellschaft, Dresden.
		Preussische Bergwerks- und Hütten-AG., Berlin.
		Preussische Elektrizitätswerke AG., Berlin.
		Rheinische Stahlwerke AG., Essen.
		Sächsische Versicherungs-AG., Dresden.
		Transatlantische Güterversicherungs-Gesellschaft, Berlin.
		Wintershall AG., Kassel.
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	DCBD	Rheinisches Braunkohlen-Syndikat GmbH., Köln.
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		Rheinische AG. für Braunkohlenbergbau and Brikett- fabrikation, Köln.
		Westfalenbank AG., Bochum.
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	CBD	AG. für Glasindustrie vorm. Friedrich Siemens, Dresden.
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	DCBD	Feldmühle, Papier-und Zellstoffwerke AG., Berlin.
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		Berliner Kraft und Licht-AG., Berlin.
		Braunkohlen-und Brikett-Industrie AG., (BUBIAG), Berlin.
		Christian Dierig AG., Langenbielau.
		Diskont-Kompagnie AG., Berlin.
		Eisenbahn-Verkehrsmittel-AG., Berlin.
		Felten & Guillaume Carlswerk AG., Köln-Mannheim.
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LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

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		Rheinische Stahlwerke, Essen.
		Schering AG., Berlin.
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		Rheinisch-Westfälische Kalkwerke, Dronap.
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		Trierer Kalk-u. Dolomitwerke, Wellen.
	DCBD	Hochtief AG., für Hoch- und Tieftauten, Essen.
		Frigga AG., Hamburg.
	MBD	Westfälische Transport-AG., Dortmund.
		Bergbau- und Hütten AG., Friedrichshütte, Herdorf.
		Deutsche Eisenwerke AG., Friedrichshütte, Herdorf.
		Dortmunder Union Brückenbau AG., Dortmund.
	MBD	Emden Verkehrs AG., Emden.
		Gesellschaft für Teerstrassenbau mbH., Essen Münsterische Schifffahrt-u. Lagerhaus-AG., Münster.
		Ruhrstahl AG., Witten/Ruhr.
		Saar AG., St. Ingbert.
	Con	August-Thyssenhütte AG., Duisburg-Hamborn.
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Westphal, Helmuth, Ministerialrat.	MBD	Bergwerksgesellschaft Hibernia AG., Herne/Westf.
		Hydrierwerk Scholven AG., Gelsenkirchen-Buer.
		Nürburgring GmbH., Adenau/Rhld.
		Preussische Bergwerks- und Hutten-AG., Berlin.
		Rheinschiffahrt AG., vorm. Fendel, Mannheim.
		Saargruben AG., Saarbrücken.
	Con	Vereinigte Saar-Elektrizitäts AG., Saarbrücken.
		M. Stromeyer, Lagerhausgesellschaft, Mannheim.
	Dir	Braunkohlengrube und Brikettfabrik der Gewerkschaft Humboldt, Wallensen/Krs. Hameln.
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		Zechen Holland, Pluto and Rheinelbe-Alma of Gelsenkirchener Bergwerks AG.
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	Dir	Rohstoffbetriebe der Vereinigten Stahlwerke GmbH., Dortmund.
Wilberg, Hermann, Bergwerksdirektor, Bergassessor a. D.	DCBD	Rheinisch-Westf. Kalkwerke, Dornap.
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	MBD	Gewerkschaft Pfannenberger Einigkeit, Neunkirchen Westf.
		Wirtschaftsgruppe Bergbau.
	Con	Mannesmannröhren-Werke, Düsseldorf.
Willing, Hermann, Bergassessor a. D., Wehrwirtschaftsführer.	MBM	Gesellschaft für Hochdruck Rohrleitungen mbH., Berlin.
		Mannesmann-Trauzl AG., Wien.
	CBD	G. Rumpl AG., Wien and Teplitz.
		Franz Seiffert & Co. AG., Eberswalde.
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	CBD	

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

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	CBD	Kohlenhandelsgesellschaft Berghohle, Buchmann & Co., Düsseldorf.
	CBM	Gewerkschaft Braunsteinbergwerke Doktor Geier, Waldalgesheim.
	DirG	Preussische Bergwerks-und Hütten AG., Berlin.
	DCBD	Bleiberger Bergwerks-Union, Klagenfurt.
	MBD	Bayerische Berg-, Hütten- und Salzwerke AG., München. Bergwerksgesellschaft Hibernia, Herne. Deutsche Kalisyndikat GmbH., Berlin. Eisenwerk Weserhütte AG., Bad Oeynhausen. Gewerkschaft Deutsche Erdöl-Raffinerie, Hannover. Mansfeld AG. für Bergbau- und Hüttenbetrieb, Eisleben. Messingwerk Unna AG., Unna/Westf. Oberbayerische AG. für Kohlenbergbau, München. Saargruben AG., Saarbrücken. Salzdetfurth AG., Berlin.
	CBM	Gewerkschaft Baden, Buggingen Gewerkschaft Markgräfler, Buggingen.
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	O	Otto Wolff, Köln.
Wisselmann, Heinrich, Generaldirektor, Bergassessor a.D., Wehrwirtschaftsführer.	CBD	Eisenhüttenwerk Thale AG., Thale/Harz. Eisen- und Hüttenwerk AG., Bochum. Neunkirchner Eisenwerk AG., Neunkirchen/Saar. Rasselsteiner Eisenwerks-Gesellschaft AG., Neuwied-Rasselstein.
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	MBD	Allgemeine Elektrizitäts-Gesellschaft, Berlin. Badische AG. für Rheinschiffahrt und Seetransport, Mannheim. Daimler-Benz AG., Berlin.
	MBD	Eisenwerk GmbH. Maximilianshütte, Rosenberg/Oberpfalz. Essener Bergwerks-Verein König Wilhelm, Essen-Borbeck. Frowein & Co. AG., Wuppertal-Elberfeld. Gebr. Stumm GmbH. Neunkirchen/Saar. Kaliwerks Aschersleben, Aschersleben. Mannesmannröhrenwerks, Düsseldorf. Mansfeld AG. für Bergbau und Hüttenbetrieb, Eisleben. Mansfelder Kupferschieferbergbau AG., Eisleben. Salzdetfurth AG., Berlin.
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Wolff, Otto, Grossindustrieller (died 1940; interests were passed on to members of family).		

LEADERS IN GERMAN COAL INDUSTRY AND SOME OF THEIR POLITICO-ECONOMIC POSITIONS—Continued

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	CBD	Chemische Fabrik Curtius AG., Duisburg. Chemische Industrie AG., Bochum. Cumaronhars-Verband GmbH., Bochum.
	MBD	Bensolverband GmbH., Bochum. Chemische Werke Essener Steinkohlen AG., Essen. Deutsche Ammoniak-Verkaufs-Vereinigung GmbH., Bochum.
		Mainkette Reederei-und Kohlenvertriebe-AG., Dortmund. Verkaufsvereinigung für Teererzeugnisse GmbH.
	MBM	Gewerkschaft des Steinkohlen-Bergwerks "Siebenplaneten," Dortmund.
	Con	Deutsche Kohlenhandelsgesellschaft Lüders, Meentsen & Co., Bremen. Ruhrgas AG., Essen.
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	CBM	Mannesmannröhren-Werks, Düsseldorf.
	CBD	"Kronprins" AG. für Metallindustrie, Sölingen-Ohligs. Mannesmannröhren-Werks Komotau AG., Komotau. Mannesmann Stahlblechbau AG., Berlin. Maschinenfabrik Meer AG., M. Gladbach.
	DCBD	Prager Eisen-Industrie-Gesellschaft, Prag.
Zangen, Wilhelm, Generaldirektor.	MBD	Allgemeine Elektrizität-Gesellschaft, Berlin. Allians und Stuttgarter Verein, Berlin. Denag AG., Duisburg. Deutsche Bank, Berlin. Deutsche Revisions- und Treuhand AG., Berlin. Rheinisch-Westfälisches Kohlen-Syndikat, Essen. Salsdetfurth AG., Berlin. Schiess-AG., Düsseldorf. Schwabenbräu AG., Düsseldorf.
	S	Reichsgruppe Industrie, Berlin.
	DS	Reichswirtschaftskammer, Berlin.
	VP	Industrie- und Handelskammer, Düsseldorf.
	Con	Hansen, Neuerburg & Co., Frankfurt/Main. Deutsche Reichsbank, Berlin.
	MBM	Rheinisch-Westfälisches Börse, Düsseldorf.
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GAS INDUSTRY OF
GERMANY



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BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

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*Major General,
The Adjutant General.*

NOTE

Civil Affairs Guides and Civil Affairs Information Guides are designed to aid Civil Affairs Officers dealing with problems in theater operation, each Guide being focused upon a specific problem in a particular area. These Guides are not basic collections of facts or information, as are the Civil Affairs Handbooks, nor are the recommendations (or action programs implied in the Guides) intended to take the place of plans prepared in the field. They are rather designed to point the factual information toward the making and executing of plans by those Civil Affairs Officers assigned to this work in the theaters of operation. *In no sense is a Guide to be taken as an order.* Such orders will be issued in the normal manner.

This Guide was prepared under the supervision of the Committee on Civil Affairs Guides and is approved by the Committee.

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SUMMARY

The following Guide deals with the gas industry in Germany proper. It describes briefly the structure of the industry, outlines the Nazi administrative machinery, and offers certain recommendations as to the control and operation of the gas industry during the period of military occupation.

The Guide shows that continued gas service is indispensable to a large percentage of urban households, to many important institutions and public services, and to some essential industries. It recommends, therefore, that the Allied authorities make every effort to facilitate maintenance or resumption of service. Actual production, however, should be made the responsibility of Germans operating under Allied control.

In order to facilitate such control, the Guide recommends that the Allied authorities take custody of publicly owned and mixed ownership gas enterprises, as well as those owned or controlled by the coal mining companies, the coke or coal cartels.

It recommends further that the management of these enterprises be thoroughly de-Nazified and that an Allied control organization be established to replace the present Nazi administration. It makes also some general and specific recommendations on an operating program for the industry.

A. THE GERMAN GAS INDUSTRY

I. Supply and Consumption of Gas in Germany

There are two principal sources of gas in Germany:

The local gas works producing coal gas and supplying households, public authorities, and industrial or commercial concerns. These works are usually public owned or mixed-ownership enterprises. They have a monopoly on the supply of gas to consumers in a given area. About one-third of the gas distributed from these enterprises is obtained from other gas works, from coke-oven works, or from the grid system.

Coke-oven gas representing the surplus gas available at many coke plants from the manufacture of coke. Pipe lines have been laid from points where surplus gas is available, and the coke-oven gas is pumped at high pressure into grid systems covering wide areas. The gas is then disposed of (a) to industrial consumers and (b) to city gas works for redistribution.

1. Local gas works.—In 1939 there were somewhat less than 1,200 gas works within Germany proper. Their geographical distribution, by Labor Trustee Districts, is shown in Table 1.

TABLE 1.—*Local gas works in Greater Germany, 1939, grouped according to Labor Trustee Districts (Treuhandbezirke) and sources of gas distributed*

Labor Trustee Districts	Plants producing gas	Plants producing gas and purchasing coke oven gas	Plants distributing coke oven gas only	Plants purchasing city gas from other gas works	Total
Ostpreussen	54			2	56
Schlesien	82	1	6	4	93
Brandenburg	77			8	85
Pommern	36	1		2	39
Nordmark	65	1	6	16	88
Niedersachsen	74	1	12	5	92
Westfalen	52	5	104	1	162
Rheinland	27	1	15	3	46
Hessen	47			22	69
Mitteldeutschland	78	^a 1		47	126
Sachsen	66		^b 11	33	110
Bayern	59			5	64
Südwestdeutschland	82		^c 1	35	118
Saar Pfalz	8	2	34		44
Oesterreich	24			3	27
Sudetengau	38				38
Greater Germany	869	13	189	186	1,257

^a *Schwelgas* (made by low-temperature carbonization of brown coal).

^b Of these, one from brown coal.

^c From outside Germany.

During 1938 the local gas works distributed a total of almost 3.8 billion cubic meters of gas. Of this amount, about two-thirds were sold to 10 million household consumers for cooking, water heating, heating of rooms, and, to a small extent, for the operation of washing machines, refrigerators, and other gas appliances. Less than one-third of the total amount was distributed to industrial and commercial enterprises, and one-tenth was used for street lighting. Although no official figures are available, it is estimated that the total distribution in 1943 amounted to 4.2 billion cubic meters.

For some years there has been a distinct tendency to concentrate production in relatively large plants. Thus, in 1938, 79 percent of the total output was accounted for by 6 percent of the total number of producing gas works. It is probable that the policy of closing down small plants and expanding the production of the larger ones has continued during the war. The total number of local gas works in operation may, therefore, now be considerably less than 1,200.

TABLE 2.—*Output of Gas Producing Plants in 1938 According to Quantities Produced Annually in Individual Plants*

Number of plants	Annual production (million of cubic meters)	Percentage of total gas output	Number of plants	Annual production (million of cubic meters)	Percentage of total gas output
4	More than 500	11.5	23	20-50	4.3
27	200-500	42.5	61	5-20	3.0
35	100-200	25.0	149	2-5	2.4
23	50-100	9.0	788	Less than 2	2.3

In 1942 German gas works consumed 10 million metric tons of coal. About 70 percent of this amount was supplied by the Ruhr-Aachen and Saar regions and the remaining by Saxony, Upper and Lower Silesia. In addition, a few local gas works use a small amount of brown coal. The coal gas is frequently diluted by the addition of small quantities of other gas, such as blue-water gas, flue gas, and gas from the treatment of sewage. The calorific value of the gas varies according to the admixture and may now range from 4,000 to 5,000 calories per cubic meter. All plants producing more than 5 million cubic meters annually check the calorific value of the gas at least daily.

City gas is usually distributed to the consumers at from 50 to 70 millimeters water pressure, which is considerably lower than that customarily used in the United States. However, the trend has been toward distribution at higher pressures, with a view to increasing the capacity of the distribution system without adding to the physical facilities.

The local distributing networks usually consist of a series of trunk mains and branch lines radiating through the roads and streets of the district. Such networks are frequently very complicated. In many cases a number of small plants have been replaced by a single, central plant and their networks combined. Because the original pipes were inadequate to supply the larger area, it has been necessary to construct holders and booster mains and to lay parallel lines. Similar problems were encountered whenever a gas plant acquired selling rights on the periphery of the city. A low gas pressure would not suffice to transmit the gas to the remote areas. It was, therefore, necessary to construct separate transmission lines which carried gas at pressures of as much as 30 pounds per square inch and to install governors which reduced the pressure sufficiently to permit the gas to be fed into the local low-pressure system.

2. Coke-oven gas.—In 1937 there were 115 coke plants in Germany. The regional distribution of these plants is shown by Table 3. In 1939 they produced 18 billion cubic meters of gas, of which almost 10 billion cubic meters were distributed to industrial consumers and local gas works, mostly in the form of undiluted coal gas. Industrial consumers accounted for about 90 percent of the volume distributed and local gas works for 9 percent. In addition, a small amount of gas was sold directly to domestic consumers.

TABLE 3.—*Location and output of German coke works in 1937*

Area	Number of coke-oven plants	Coke produced (in 1,000 metric tons)	Percent of total coke production
Ruhrgebiet.....	82	31, 458	76. 9
Aachener Bezirk.....	4	1, 361	3. 3
Saar.....	7	2, 875	7. 0
Oberschlesien.....	7	1, 933	4. 7
Niederschlesien.....	4	1, 296	3. 2
Sachsen.....	2	306	0. 8
Other regions.....	9	1, 691	4. 1
Total.....	115	40, 920	100. 0

It is estimated that in 1943 the coke-oven plants consumed about 70 million metric tons of coal to produce 50 million tons of coke and 19.5 billion cubic meters of gas. It is quite probable that industrial consumers have increased their share of the total amount of gas distributed by the plants.

Coke-oven gas is distributed through extensive pipe-line systems which have been constructed during the last 15 years. Plans to interconnect the various pipe lines and to develop a unified grid system covering the entire country have not yet been realized. At the present time, the pipe-line system consists, therefore, of a series of disconnected regional networks.

In the Rhine and Westphalia district a large network, extending as far as Hannover, is being fed by the Ruhr coke ovens. This network was recently interconnected with a second pipe-line system covering the Rhein-Main area. The latter is fed by coke ovens in the Saar. Smaller networks cover the area around Magdeburg in Central Germany, parts of Thuringia, Saxony, Lower Silesia, and the Saar, as well as the areas around Berlin and Hamburg. No recent figures on the total length of the pipe-line systems are available. In 1934 these systems extended over approximately 2,000 kilometers and distributed almost 3 billion cubic meters of gas. Today the total length of the systems may well be around 4,000 kilometers.

The long-distance gas is purified, compressed, and transported at high pressures (generally 6 to 7 atmospheres, but pressures range up to 36 atmospheres) through steel mains. Storage facilities are provided by gas holders spaced along the distributing system and in the towns supplied by the network. Constant supervision over the lines is essential in order to adjust pressures to the fluctuating demands made upon the system and to make routine and emergency repairs.

II. Ownership and Management

1. **Local gas works.**—The city gas industry in Germany was established by private initiative during the 19th century. Private ownership of local gas works and city distributing systems has, however, been gradually replaced by public and mixed ownership. At the outbreak of the war, municipally owned gas works accounted for more than 90 percent of the gas distributed to cities and towns. Of 1,200 operating gas works, about 900 were owned by municipalities or public corporations, 180 were of the mixed ownership type, and 120 were privately owned.

Municipal plants may be administered by a "gas works department" or by a department which is responsible for the administration of a number of utilities such as gas, water, electricity, and city transport. In the case of about 40 towns, the gas works are leased to private companies, and in the case of about 20 towns, they are administered by private operating companies for the account of the municipal owners.

By the *Eigenbetriebsverordnung* of November 21, 1938, the administration of municipal enterprises were reorganized according to the "führer" principle and all plants were urged to adopt uniform accounting and bookkeeping practices. The decree applied only to cities with more than 10,000 inhabitants, but smaller towns were expected to conform to its terms whenever possible.

Under the terms of the decree, the mayor of a city is nominally in charge of the municipal plants. In larger cities, however, it is customary for the mayor to appoint a personal representative who acts as manager of the plant. The mayor or his representative also appoints a management board which serves in an advisory capacity. Although the decree does not provide for a manager, in practice he is the person who is immediately responsible for the operation of the plant. He hires and fires personnel and disposes of operating problems as they arise from day to day.

In about 80 percent of all cities of more than 100,000 inhabitants, the manager and the management board operate the electric power plants as well as the gas works. The general manager of both utilities is usually a mechanical engineer, sometimes an economist, and less frequently a lawyer. The joint management establishes policy with respect to the type of energy to be supplied to city outskirts, to be used for street lighting, and similar problems.

It is estimated that the total administrative personnel of municipal gas works and combined gas and electric power administrations numbers about 7,500 persons. During the Nazi regime, the managements have been systematically purged. Although most managers are still technicians, they are also "reliable" Nazis.

Privately-owned gas works are frequently controlled by large companies which operate a number of plants. They have played an important role in the "rationalization" of the gas industry by closing down small, inefficient plants and by providing interconnections among local distributing systems. One of the most important of these companies is the *Vereinigte Elektrizitätswerke Westfalen A. G.* It operates its own gas works and purchases also large quantities of coke-oven gas distributed through the pipe-line systems of *Ruhrgas A. G.*, *Thyssen'sche Gas und Wasserwerke*, and *Westfälische Ferngas*. A number of private gas works are, however, operated as entirely independent enterprises. In addition, there are a few operating companies which either lease municipally-owned gas works or operate them for the account of owners.

2. Coke-oven gas.—Most of the large coke ovens are owned by big mining and metallurgical concerns. The administration of these enterprises is discussed in CAD Guide: *Coal Production and Distribution in Germany*. Because gas is a byproduct of the coke ovens, the volume of output depends upon the production of coke which, in turn, is determined largely by the demand of the heavy industries.

The gas pipe-line networks are predominantly of a mixed ownership type. Public bodies, such as municipalities, provinces, and the Reich, have majority or substantial minority holdings in a number of the largest enterprises. Some of the more important gas distributing companies are:

a. *Ruhrgas A. G.* is a joint enterprise of the Ruhr mining corporations. It maintains the most extensive pipe-line system in Germany, through which it feeds the surplus gas produced by the coke ovens of its shareholders. Parts of the system were acquired from the *Rheinisch-Westfälische Elektrizitätswerk A. G.* The gas is sold to the iron and steel producing and fabricating industries, the chemical industries, other industrial consumers, and to municipal gas works for redistribution to household consumers. The company has reserved to itself the right to supply its shareholders, mainly the steel com-

panies, with gas even when other gas companies have a "gas monopoly" in the area. For the purpose of exercising this right, it has concluded agreements with other pipe-line companies to transport gas through the networks owned by them. In 1932, the *Ruhrgas A. G.* sold nearly 2.7 billion cubic meters of coke-oven gas. The iron and steel industry accounted for 75 percent of this amount, the chemical industry for 7.5 percent, the nonferrous metals industries for 4.8 percent, the glass and ceramic industries for 3.2 percent, city gas works for 9.2 percent, and other industries for 0.3 percent.

b. *The Westfälische Ferngas A. G.* is owned largely by the province of Westphalia. It sells gas to four groups of consumers: (a) directly to industries, (b) to local gas works for redistribution to households and local industries, (c) to the Bethel Asylum near Bielefeld, and (d) to the *Vereinigte Elektrizitätswerke Westfalen A. G.*, Dortmund, for redistribution through pipe lines owned by that company. The *Westfälische Ferngas A. G.* distributes also large quantities of gas made available by *Ruhrgas A. G.* to the industrial consumers of the latter.

c. *The Thyssen'sche Gas und Wasserwerke G. m. b. H.* was originally a family concern. The present ownership is not known. The company may have been confiscated by the Reich, acquired by *Ruhrgas A. G.* or it may still remain in the hands of the Thyssen family. It is known, however, that the company has always been closely associated with *Ruhrgas A. G.* Thus, the two pipe line systems are interconnected at a number of points, and some pipe lines were jointly constructed by the two companies.

d. *The Ferngasgesellschaft Saar* is owned mainly by the city of Saarbrücken.

e. *The Südwestdeutsche Ferngas A. G.* is owned by the Reich and the states of Württemberg and Baden, with a small participation of several municipalities. The company was formed in 1942, and supplies gas to Württemberg, Baden, and Alsace.

f. *The Gasversorgung Magdeburg Anhalt A. G.* is controlled by a private concern, the *Deutsche Continental Gasgesellschaft*. The city of Magdeburg and the province of Saxony have minority interests.

g. *The Thüringer Gasgesellschaft* is a large private concern.

h. *The Ferngas Schlesien A. G.* is mainly owned by public bodies. The company utilizes brown coal from the Lausitz area. It purchases also large quantities of coke-oven gas from Silesian coke plants.

i. *The Reichswerke Herman Göring* produces large quantities of surplus coke-oven gas. Part of this gas is distributed through existing pipe-line systems. It is believed, however, that the company has also constructed its own network.

III. Personnel

It is estimated that local gas works now employ approximately 55,000 persons. More than 80 percent of this total are employed by producing plants, and less than 20 percent by distributing plants. No figures are available on the number of persons involved in the production and distribution of coke-oven gas.

Public Service personnel was formerly a stronghold of the Social Democratic Labor Unions, especially in Prussia and Saxony. The Nazi regime succeeded in breaking up these unions and organizing the

personnel in the "Power, Transport, and Administration Division" of the German Labor Front. Plant leaders and plant foremen are now the appointed representatives of the German Labor Front in charge of the political control of the personnel.

The technical and scientific personnel of the gas works is organized in the "German Association of Gas and Water Experts," (*Deutscher Verein von Gas-und Wasserfachmännern*), which is incorporated in the National Socialist Organization of German Technicians. This Association has been brought under direct government control through a common leadership with the *Wirtschaftsgruppe Gas und Wasserverordnung*. Because the technical high schools were strongholds of antidemocratic sentiments even during the last years of the Weimar Republic, the pan-Germanistic and Nazi leanings of the technical and scientific personnel are of long standing.

IV. Control of Gas Production

1. **Bureaucratic administration.**—In common with all German economic activity, the gas industry is subject to control by the Central Planning Board (*Zentrale Planung*) of the Four Year Plan Office. As the name suggests, however, this organization confines its activities to over-all planning and policy making. Actual control over the gas industry is exercised by Albert Speer in his dual capacity as Minister of Armament and War Production and Inspector General for Water and Power.¹

Since the reorganization of the German economic administration in September 1943, the Minister of Armaments and War Production has assumed complete control over all industrial production. For this purpose, a Planning Office (*Planungsamt*) develops production programs, establishes priorities, and makes general allocations of raw materials, labor, and power. The problems of power planning is entrusted to the Energy Planning Office (*Amt für Energieplanung*), which is one of the Ministry's 6 production offices. The Energy Office is headed by Schulze-Felitz, who is assisted by 13 technical experts chosen from the gas and electricity industries. It develops power production programs; determines coal, manpower, and supply requirements; and promotes schemes designed to reduce industrial power consumption. A Special Deputy for Power Saving (*Sonderbeauftragter für Energieeinsparung*) is responsible for the last-named activity. He operates through regional deputies, one of whom has jurisdiction over each of the 13 Power Districts and the 3 or 4 Gas Districts.

The office of Inspector General for Water and Power (*Generalinspektor für Wasser und Energie*) was originally an independent agency, directly responsible to Hitler. Since 1942, its functions have been subordinated to the Ministry of Armaments and War Production. The Inspector General is now responsible for elaborating the power programs and supervising their execution. With the aid of a Power Industry Section (*Abteilung Energiewirtschaft*) he establishes policy, allocates the total power production task among regions and to specific plants, makes available coal and other supplies, issues di-

¹ By the Energy Economy Act (*Gesetz zur Förderung der Energiewirtschaft*) of December 13, 1935, the Reich assumed control over all electricity plants and gas works. This control was to be exercised by the Minister of Economic Affairs. By later decrees his powers were transferred to the Inspector General for Water and Power. For excerpts of the act, see CAD Guide: *Electric Power Systems of Germany*.

rectives concerning technical matters, passes upon proposed expansion or curtailment of production facilities, and directs the activities of the regional and local agencies in charge of gas and electricity production and consumption. Because the Inspector General has no field organization of his own responsible for the supervision of gas production, he relies upon the National Group Power and the general administration—the provincial presidents, the city mayors, and the rural councils—for the execution of the gas production programs on the regional and local level.

2. Administration through industry representation.—Prior to the Hitler regime most private gas works and distributors of coke-oven gas were members of a cartel, the *Wirtschaftliche Vereinigung deutscher Gaswerke, Gaskokssyndikat*. Under the terms of the Power Industry Decree (*Energiewirtschaftsgesetz*) of 1935 all publicly owned as well as private gas works and distributors of coke-oven gas were compelled to become members of the National Group Power (*Reichsgruppe Energie*). The cartel was absorbed by the group but retained its legal identity and played a leading part in the affairs of the group.

The National group Power is subdivided into several Economic groups, one of which is the Gas and Water Supply Group (*Wirtschaftsgruppe Gas und Wasserversorgung*). The Gas and Water Supply Group maintains regional offices in each of the 30 Economic Regions into which Germany is divided. Both the National and Economic Group are organized according to the leadership principle. Their officers are appointed by or with the consent of the Minister of Economic Affairs. Since 1943, however, the Groups have been under the jurisdiction of the Minister of Armaments and War Production, who supervises their activities in detail. Because of this close supervision, the Groups serve as effective instruments for implementing Nazi policy.

The Minister has delegated important executive functions to the Gas and Water Supply Group. It participates in the development of production plans, suggests expansion or closing down of particular enterprises, calculates coal and supply requirements, and carries out the directives of the Minister and the Inspector General. It has also been instrumental in the development of uniform, regional rate schedules (*Regionverbrauchtarif*) for household and small industrial consumers and for the introduction of uniform accounting practices.

As members of the gas cartel, private gas works and distributors of coke-oven gas are also members of the National Group Commerce (*Reichsgruppe Handel*). It does not appear that this affiliation has any bearing on the control of production and distribution of gas.

A special, voluntary corps of technicians (*Technische Nothilfe*) functions for the purpose of facilitating emergency repairs. This was organized as early as in 1921, with a view of enabling continued operation of public utilities in case of strikes or leftish uprisings. It drew its membership largely from the *Schwarze Reichswehr*, an illegal military formation of Pan-Germans. During the Hitler regime the corps was greatly expanded and placed under the command of the *Reichsführer SS*. Most of its members are SS men. The corps undertakes to repress sabotage and to hold foreign workers "in line."

V. Control of Gas Distribution

The Inspector General for Water and Power is responsible for the formation of a general gas consumption program. For this purpose he may establish priority classifications and issue directives designed to regulate consumption and promote fuel economy. Because Germany has no unified, national gas distributing system, however, the actual control of distribution is handled on a regional and local basis.

By decree of September 20, 1939, at least three "Gas Districts" were created, as follows: (a) Ruhr district extending to Hannover, (b) Saar-Rhine-Main Württemberg, and (c) Central Germany. The headquarters of these districts were established at the State Economic Offices (*Landeswirtschaftsämter*) in Düsseldorf, Wiesbaden, and Dresden, respectively. Within the framework of the policies established by the Inspector General, the Gas District Offices make allocations to broad consumer groups according to their war essentiality. Allocations to particular industrial consumers, however, are made by the Gau and Local Economic Offices. These offices are also responsible for the enforcement of all regulations and may impose fines on any consumer who exceeds his quota.

Gas for household use has not been rationed. Official orders designed to reduce consumption have, however, been issued from time to time. Thus, on February 18, 1943, the Inspector General for Water and Power ordered all households to reduce their consumption to 90 percent of that of the previous year. A special deputy was appointed to enforce the order, but control was actually handled by the local gas distributors. Special orders applying to particular regions or cities have also been issued by the regional Gas District Offices and by *Wirtschaftsämter*. In some cases, gas supply has been cut off during certain hours of the day. Overconsumption may be punished by money fines or by temporary removal of gas appliances.

B. RECOMMENDATIONS ²

General

1. Because of the importance of continued supply of gas to a large percentage of German urban households, to hospitals, public kitchens, and other institutions, to street lighting systems, and to many essential industries, it is recommended that the Allied Authorities make every effort to facilitate maintenance or speedy resumption of limited gas service. Because of the likelihood of an acute shortage of coal, however, such service should be confined to essential uses. Operating responsibility should, as far as possible, be placed upon German personnel and organization functioning under Allied supervision and control.

2. In order to facilitate Allied control, it is recommended that the Occupying Powers immediately take custody of all physical properties, other assets, facilities, and records of publicly owned or mixed ownership gas works and distributing systems.³ For recommen-

² These recommendations should be read in conjunction with the recommendations contained in CAD Guides: *Electric Power Systems in Germany* and *Public Gas Supply in Northwest Germany*.

³ See CAD Guides: *Property of the German State, Provincial and Local Governments, and Mixed Properties* as well as *Preservation and Use of Key Records in Germany*.

dations on the treatment of coke-oven gas plants and distributing systems owned or controlled by the coal mining companies, coke and coal cartels and associations, as well as by their parent, subsidiary, and affiliated companies and organizations, see CAD Guide: *Coal Production and Distribution in Germany*.

3. The German government agencies now controlling the production, allocation, and distribution of gas are thoroughly Nazified, as are the managements and directorates of the gas producing and distributing enterprises enumerated in the preceding recommendation. It is, therefore, recommended that all persons holding policy-making or general administrative positions in any such government agency and any publicly owned or mixed ownership gas producing or distributing enterprise be removed even if their removal may temporarily cause some curtailment of service or bring about somewhat less efficient operation.⁴ Except in very unusual cases, there is no reason to expect that such removals will cause serious curtailment of gas service. Persons holding policy-making or general administrative positions in independent private gas works should be removed only insofar as the personal records of particular individuals made such removal advisable.

4. The members of the technical, clerical, and operating personnel of the government agencies and gas enterprises should be carefully scrutinized, with a view to removing all persons who owe their positions to political activity and all known active Nazis.⁵

5. It is recommended that the names and positions of the persons removed be given wide publicity. It is further recommended that all such persons be prohibited, under penalty of imprisonment, from attempting to exercise, either directly or through agents, any authority over sequestered properties and assets or to influence employees in the discharge of their functions under Military Government.

6. All technical, clerical, and operating personnel who are retained in their positions should be made directly responsible to the Allied authorities, and any attempt to obstruct or interfere with the Allied gas production and distribution program should be punished by immediate dismissal and appropriate disciplinary action.

7. Replacements for dismissed German technical personnel should be sought among the technicians who, for political or racial reasons, were dismissed or demoted by the Nazis; retired professors of German technical schools who have a record of passivity or hostility to the Nazis; operators of small gas enterprises, whose plants were scrapped in the process of Nazification and rationalization of the gas industry; and former trade union members. Consideration should also be given to the possibility of employing technicians from other Allied nations, particularly Belgium whose gas system bears a greater technical resemblance to that of Germany than the gas systems of any other country.

Administration

8. It is recommended that, on the local level, the supervision of gas production and distribution of seized plants be entrusted to the Allied officer in charge of the particular city or town. In very large cities, he

⁴ See CAD Guide: Elimination of Nazis from German Public Utilities.

⁵ See CAD Guide: *General Principles for the Dissolution of the Nazi Party and the Elimination of Nazis*.

should be assisted by one or more Public Utility officers. He should be responsible for seeing that:

a. All files, records, and documents pertaining to the administration of gas service are safeguarded and, insofar as practicable, brought together in the office of the Mayor, the Public Utility Administration, the local gas work, or such other place as will serve as headquarters for the gas administration.

b. All policy-making officials, all persons in charge of personnel matters, and all persons deemed unreliable are removed.

c. All remaining top-ranking personnel are summoned together and a prepared statement read to them. Such a statement should include:

Announcement of the change of authority.

Announcement of their responsibilities.

Offer of an opportunity for them to resign if they are unwilling to accept the change in authority and to follow orders of the Allied Authorities.

Statement of the penalty (imprisonment) for anyone who remains in the service and fails to follow orders or attempts to evade, or aid others in evading instructions.

d. A survey is made, with the aid of reliable German technicians, of the condition of the local producing and distributing facilities. The survey should determine the repairs necessary to restore or maintain service; ascertain the available stocks of coal, repair parts, and other supplies; and, on the basis of an examination of customers' lists or records of the gas allocating section of the local *Wirtschaftsamt*, provide an estimate of minimum gas requirements.

e. A minimum gas production and distribution program is developed for the particular locality. Such a program should be based upon the information made available by the survey and should be in conformity with the regulations established by the superior organization. It should include a statement of necessary repairs; an estimate of the labor, equipment, materials, and time required to accomplish such repairs; anticipated rates of production; amounts of gas to be allocated to various classes of consumers (such as household, institutional, public lighting, industrial, etc.); and the amount of coal and other supplies required. The program should be submitted to the Allied regional gas authority for approval.

f. Priorities and gas quotas are established, and necessary directives to gas consumers issued. If deemed desirable, the local *Wirtschaftsamt* (under Allied supervision) should be entrusted with gas allocating and rationing functions.

g. The program is put into operation and executed and the local gas plant operated in accordance with Allied interests.

9. It is further recommended that, if a particular city is supplied by an independent, private gas plant which is to be permitted to continue operation under its present management, responsibility for its regulation be entrusted to the Allied officer in charge of the city. He should examine the personal records of all key officials of the plant with a view to removing those who are active Nazis. With the aid of the remaining technical management, he should have a survey made of the technical conditions of the available facilities, secure an estimate of minimum gas needs, and draw up and report to the Allied regional

office a minimum production and distribution program (as suggested under "8" above). On the basis of such a program he should issue the necessary directives to the plant and to its consumers. Violation of such directives should result in the immediate seizure of the plant.

10. It is recommended that, on the regional level, the administration of gas production and distribution be assigned to Allied regional gas authorities, one of which should be established for each of the present three or four gas districts. These districts have apparently been laid out in such a manner as to correspond to cohesive production-consumption areas. They are, therefore, likely to provide efficient administrative units. In the event that, for occupation purposes, Germany is divided into zones, the boundaries of the gas regions should be adjusted so as to conform to such zones. Each regional authority should be staffed by several Allied Public Utility officers, the exact number depending upon the size of each district and the number of long distance distributors of coke-oven gas operating therein. It should:

a. Use the Gas District Office (in the *Landeswirtschaftsamt*) as its headquarters, and bring together all files, records, and documents pertaining to its functions.

b. Remove all policy-making officials in the Gas District Office, all persons in charge of personnel matters, and all persons deemed unreliable. All members of the remaining staff should be kept under surveillance.

c. Assume control over all long distance distributors of coke-oven gas within the area. For this purpose one or more officers should be detailed to the headquarters office of each such distributor. These officers should proceed in much the same manner and perform much the same functions as those suggested for the local public utility officers under "8" above. It is particularly important that proper safeguards be established to prevent the distributors from diverting gas to their own shareholder customers.

d. In conformity with the national gas production and distribution policies and on the basis of reports submitted by Allied local public utility officers and the officers assigned to long distance distributors, develop a gas production and distribution program for the region. Such a program should include: determination of the total quantity to be produced, selection of the producing plants to be operated, assignment of production quotas to each such plant, establishment of consumption quotas by communities, and determination of coal and other supply requirements.

e. In the case of widespread destruction, select the plants to be repaired, establish repair priorities, and organize a program of systematic repairs. Make arrangements for and issue instructions to the subordinate organizations with respect to the procurement of repair parts, equipment, and the like.

f. Make arrangements with the Allied coal allocating authorities for the necessary supplies of coal.

g. Issue general and specific instructions (including priority directives) concerning the consumption of gas.

11. It is recommended that, in order to gear the gas production and distribution program into an over-all economic program for Germany, an Allied Gas Board (representing each of the major occupying powers) be established. Such a Board should:

a. Use the offices of the Inspector General for Water and Power (particularly the Power Industry Section) as its headquarters, and bring together all files, documents, and records, pertinent to its functions.

b. Remove all policy-making officials in the office of the Inspector General, all persons in charge of personnel, their principal assistants, and all persons deemed unreliable.

c. Plan and supervise gas production, allocation, and distribution in Germany; and supervise all enterprises, agencies, and organizations having part in such operations. The objectives of such activities should be: to denazify the gas industry; to maintain gas supplies for essential uses; to secure coal, repair parts, equipment, and other supplies needed for gas production; and to coordinate the production (and consumption) of gas and electricity in such a manner as to achieve the most efficient use of the available coal supply.

Adaptation and Abolition of Nazi Agencies and Organization

12. The Energy Planning Office (*Amt. für Energieplanung*) in the Ministry of Armaments and War Production has been responsible for power planning for the purpose of promoting armaments production. However, in the performance of its task it has undoubtedly established organization, developed procedures, and accumulated facts and experience that might well serve the purposes of Allied administration. It is, therefore, recommended that such facilities, files, and acceptable personnel in the Energy Planning Office as are now employed in the performance of functions that are deemed necessary under Military Government, be taken over and placed under the control of the Allied Gas Board by making them a part of the office of the Inspector General for Water and Power. All persons now engaged in functions that are considered unnecessary or inimical to Allied Military Government should be discharged.

13. It is recommended that the office of the Special Deputy for Power Saving (*Sonderbeauftragter für Energieeinsparung*) and the offices of his regional deputies be abolished and their records and files made available to the appropriate Allied Authorities. These offices are out-and-out Nazi organizations, and the function of the deputies is to promote the war effort.

14. The National Group Power (*Reichsgruppe Energie*) and the Gas and Water Supply Group (*Wirtschaftsgruppe Gas and Wasserversorgung*) and their subordinate organization are part of the "self-administrative" system for industry and, as such, one of the important instruments by which the Nazis have succeeded in mobilizing industry for aggression. The groups have, however, performed certain functions—such as allocation of raw materials—that must be continued under Military Government. It is, therefore, recommended that the organization, facilities, files, and acceptable personnel of the groups be used by and placed under the control of the Allied gas authorities or the Allied regional raw material allocating authorities, as the case may be. The groups represent an embodiment of totalitarian economy, and successful disarmament of Germany may demand their ultimate dissolution. Their continued use is justified only on the grounds of providing a convenient instrument of control during the first period of occupation.

15. It is further recommended that the gas cartel (*Wirtschaftliche Vereinigung deutscher Gaswerke, Gaskokssyndikat*) be treated in accordance with the recommendations contained in CAD Guide: *German Cartels and Cartel-Like Organizations*.

16. The Emergency Repair Corps (*Technische Nothilfe*) should be dissolved. The membership of this organization is drawn from SS men and other ardent Nazis. Its continued existence would constitute a grave danger.

17. For the same reason, it is recommended that the German Association of Gas and Water Experts (*Deutscher Verein von Gas- und Wasserfachmännern*) and similar professional organizations be dissolved, their assets sequestered, and their files placed in safe custody.

Operation

18. Because of the anticipated shortage of coal, it is recommended that gas production and consumption be reduced to a minimum.⁶ Because household consumption has apparently already been severely cut, it appears that such reduction must be accomplished mainly by restricting gas supplies to industries, and particularly to the heavy and chemical industries.

19. Although the Allied local utility officers should be made responsible for emergency repairs and for the speedy resumption of local service, it is recommended that, at the earliest possible moment, a systematic repair and production program be organized on a regional basis. Such a program should be designed to achieve maximum utilization of technical skill, reduce waste of repair parts and equipment, and develop a coordinated and efficient system of limited gas production and distribution.

20. In order to bring about maximum utilization of the available supplies of coal, it is recommended that, as far as possible, gas production be concentrated in large and efficient plants. Such concentration is possible to the extent that particular, local distributing systems are, or can easily be, connected with gas pipe-line systems or the networks of adjacent, efficient plants.

21. Because of the anticipated transportation shortage, it is further recommended that, as far as possible, production be concentrated in the coke-oven plants located at coal mine heads. For this purpose it may be desirable to shut down producing plants in cities which now obtain a part, but not all, of their supply from long distance distributing systems. Although it is probable that the Nazis have already exploited this method of saving transportation to a considerable extent, it is likely that they have not been able to exhaust all possibilities because industrial consumption has placed such a heavy demand upon the producing capacity of the coke-oven gas plants that no additional gas was available for diversion to public gas distributing systems. With a sharp reduction in industrial demand, this limiting factor will be removed. Consideration should also be given to the possibility of connecting additional consuming areas to the grid systems. The construction of such connecting pipe lines may be particularly desirable in the case of cities whose local producing plants have been seriously damaged. It is recommended that the coke-oven plants use the largest possible proportion of high-volatile coal in order to obtain maximum gas yields.

⁶ See CAD Guide: *Coal Production and Distribution in Germany*.

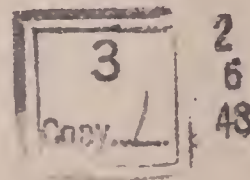
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MILITARY GOVERNMENT GUIDE

PRICE AND RENT CONTROL IN GERMANY



WAR DEPARTMENT

JUNE 1945

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WAR DEPARTMENT
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Military Government Guides on Germany are designed to aid officers responsible for military government in that country. Each Guide is focused on a specific problem which may confront military government authorities and contains (a) pertinent information organized in such a way as to be useful in dealing with the problem, and (b) an analysis of the various steps which might be taken in meeting the problem.

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(Material for this Guide was prepared prior to the occupation of Germany, and should be read with this fact in mind.)

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SECTION I. PRICE CONTROL

1. Introduction

The control of prices and rents in Germany is primarily a German responsibility. The Allied Authorities have, however, a definite interest in the maintenance of reasonably stable prices. Any considerable inflation would inevitably play havoc with the production, transportation, and effective distribution of essential indigenous commodities. As a consequence, the German contribution to the rehabilitation of Europe might be unnecessarily impaired. Moreover, run-away inflation might cause mass privation and make it extraordinarily difficult for military government authorities to prevent starvation and such disease and disorder as would endanger the occupying forces and the accomplishment of their objectives.

2. Administration of Controls

Price control was a cornerstone of Nazi economic policy even before the outbreak of the war. Prior to 1936, however, the administration of price control was not centralized. The act of 29 October 1936 to Carry Out the Four-Year plan laid the basis for the wartime control of prices. This act created the Office of the Reich Commissioner for Price Control, provided for the appointment of the Price Commissioner by the Führer, and placed the Price Commissioner under the supervision of the Commissioner for the Four-Year Plan. It gave the Price Commissioner authority over the prices of all commodities and services, and over all other remunerations except wages and salaries. The Price Commissioner, however, was authorized with the approval of the Commissioner for the Four-Year Plan to delegate his authority in whole or in part to other agencies.

a. National level. -- (1) In the main, the Price Commissioner acted through other agencies to whom he has delegated price powers. Thus, authority over the prices of agricultural commodities, both raw and processed, has been delegated to the Ministry of Food and Agriculture, the Food Estate, and the Central Marketing Organizations (Hauptvereinigungen). Decrees fixing the prices of food and farm products are issued jointly by the Price Commissioner and the Minister of Food and Agriculture. Often such decrees are issued by the Marketing Organizations with the approval of the Price Commissioner and the Minister of Food and Agriculture. Similarly, authority over the prices of products under the jurisdiction of the Reich Forest Master has been delegated to that official, and decrees involving such prices are put forth jointly by the Price Commissioner and the Reich Forest Master. In some cases the Minister of the Interior also joins in issuing these decrees. Occasionally price powers are delegated to the Reichsstelle

with regard to the commodities under its jurisdiction. Recently the Price Commissioner delegated price powers to the Reich Associations (Reichsvereinigungen) for Chemical Fibers, Hemp, Textile Finishing, and Iron, and to the National Tube Glass Cartel. In all such cases the Price Commissioner exercises supervision over the price-fixing activities of these authorities.

(2) So far as the division of function between the Price Commissioner and all the other price offices is concerned, the Price Commissioner retains responsibility for general policy and passes directly only upon (a) the price of coal, (b) prices established by government-controlled enterprises, such as the Reich Railroad, (c) cartel prices, (d) prices established by the compulsory organizations of industry and agriculture, and (e) other prices of "fundamental importance."

b. Regional level. -- There are 26 Offices of Price Control (Preisbildungstellen) which exercise price-control authority at the state (and for Prussia, the provincial) level. Authority is actually delegated to the heads of these offices who are, in Prussia, the Presidents of the provinces and, elsewhere, the supreme state authorities. With minor exceptions, these offices have authority over all prices not under the direct control of the Price Commissioner. These offices are staffed with civil servants who, in practice, take their orders from the Price Commissioner.

c. District level. -- Within the various states and in Prussia, within the provinces, there are 56 Offices of Price Enforcement (Preisüberwachungsstellen) which are primarily responsible for enforcement. These offices do not have authority to grant price increases. In Prussia, Bavaria, and Saxony price supervision is delegated to the President of the government districts (Regierungsbezirke), in Hamburg to the Economic Office, and in the other states to the supreme state authorities.

d. Local level. -- The Offices of Price Supervision in turn have delegated their enforcement powers to subordinate local agencies, in Prussia to the county chiefs (Landräte), mayors and police presidents (in Hamburg to the Office for Trade, Navigation, and Commerce, Behörde für Handel, Schifffahrt und Gewerbe); and in other states to corresponding agencies.

e. Recommendations. -- (1) Immediately upon occupation, Military Government authorities should, with the modifications suggested below, continue the existing national, regional and local organizations of price control, together with the existing division of functions among them. Since the Four Year Plan Office, as a Nazi instrumentality, will be abolished, a Price Commissioner should be made responsible to

the occupying authorities.

(2) The delegation of authority made by the Price Commissioner to other governmental agencies should be revoked. Since many of these -- in particular the Food Estate (Reichs Nährstand) and the compulsory organizations of trade and production should, as Nazi instrumentalities, be dissolved, it will be necessary for a Price Commissioner, under Allied supervision, to assume direct responsibility for the control of these prices.

(3) All delegations of price powers to private groups or organizations should be revoked. The Military Government authorities may wish to seek the advice and counsel of private groups and organizations, but delegation of governmental power to them is not advisable during the period of military occupation. Thus the Central Marketing organizations (Hauptvereinigungen), the Reich Associations (Reichsvereinigungen) for Chemical Fibers, Hemp, Textile Finishing Organizations (Hauptvereinigungen), the Reich Associations be deprived of the power over prices they now have, and the German governmental authorities should assume direct responsibility in these fields.

(4) Although the men at the head of the price offices are undoubtedly active Nazis who will have to be replaced, the lower ranks of officials, who are drawn from the Civil Service, can, after they are purged of individual Nazis, form the basis of the new price administration. During the entire period of military occupation, the German administration of price control should on all levels be supervised by the Military Government. During the emergency period it may be necessary to put Military Government personnel directly in charge of the office of the Reich Commissioner for Price Control, as well as part or all of the regional and local price offices. As quickly as possible, however, Germans should be placed in positions of responsibility, with the Military Government authorities retaining supervision.

(5) The decision to divide Germany into zones of military occupation will present special problems of price control and will require close cooperation among the occupying authorities. National price administration is essential to the success of price control in a country with a national market for most of its products. If different price levels prevail in different areas for a product which has a national market the area in which the highest price prevails will, under scarcity conditions, tend to draw off the entire supply. The attempt to maintain such a system would disrupt the desired flow of commodities, cripple the operation of the rationing system, and provoke price competition among areas, thus threatening a general breakdown of distribution. It is possible, however, that obstacles to interzonal trade would limit the effects of conflicting price levels. But should the zonal arrangement be merely a division of labor, with important policy decisions being formulated by Allied authorities in

Berlin, it would be desirable to establish a national administration of price control. In such event it would also be advisable to set up a zonal level of price administration. The Zonal Price Administrators would be representatives of the Central Price Commissioner, authorized to act on his behalf, and would be entrusted with the responsibility of supervising the regional, district, and local price offices.

3. Nature of Controls

a. Types of control. -- The Price Stop Decree, issued by the Price Commissioner on 26 November 1936, is at the core of the German price-control system. The War Economy Decree, issued by the Ministerial Council for Defense of the Reich on 4 September 1939, gave additional powers to the Price Commissioner. This Decree, which provided that "prices and compensations for goods and commodities of any kind must be calculated according to the principles of an economy committed to war", was used as the basis for the institution of a price-reduction program. There was a group of commodities which were never subject to the provisions of the Price-Stop Decree, and which were expressly exempted therefrom by the First Regulations pursuant to the Decree, issued by the Price Commissioner on 30 November 1936. Most of these commodities remained subject to decrees antedating the Price-Stop Decree which were modified and implemented from time to time. Furthermore, as experience in the administration of the Price-Stop Decree was gained, it became apparent that it did not fit the particular nature of many industries and trades. To an increasing extent, therefore, many industries and trades were exempted from the Price-Stop Decree and subjected to separate decrees, regulations, and orders which attempt to devise methods of price control better suiting their needs. The resulting price-control system is rather complex.

(1) Price-Stop Decree. -- (a) This Decree forbade the seller of any commodity to charge more for that commodity than he charged on 18 October 1936. Thus each individual seller had his own maximum price, based on his own past practice, except in the case of those commodities for which maximum prices had been fixed on a national or regional basis before the issuance of the Price-Stop Decree. The Decree forbade direct or indirect evasions of its provisions. Combination sales, by which the sale of one product is made dependent on the purchase of another, were thus outlawed. Quality deterioration without a proportionate price reduction was also held to constitute a violation of the Decree.

(b) Special provision was made for commodities which were not sold on 18 October 1936. Generally, it was provided that such commodities were to take the maximum prices applicable to similar commodities, with certain adjustments for unavoidable cost increases. If no similar commodity was sold on 18 October 1936, the maximum price

was to be determined in accordance with a formula which required the seller to compute his costs on the basis of legal maximum prices and wages. Since 1941, substitutes and new products have had to be reported to the Office of Price Control which, on the basis of detailed cost statements, approves or disapproves the price proposed.

(c) The pricing of second-hand goods presented a special problem under the Price-Stop Decree. In 1942 a new system of maximum prices for all second-hand merchandise except art objects, objects having a collector's value, and scrap and waste materials, was announced. The prices for such merchandise were not to exceed the maximum price for the new article less depreciation, allowances reflecting the decrease in value of the article, or a price equal to 75 percent of the maximum price for the new article, whichever was lower. The Reichsstellen for Paper, Iron and Steel, Rubber and Asbestos are authorized to fix maximum prices for the scrap and used materials within their jurisdiction. However, their actions must be approved by the Price Commissioner. Art objects and objects having a collector's value apparently are exempt from all price control.

(2) Agricultural prices. -- (a) Comprehensive control of agricultural prices dates back to the time of the establishment of the Food Estate in 1933-34. It was originally intended to protect agriculture by a system of minimum prices. With the institution of general, centralized price control, agricultural prices came under the jurisdiction of the Price Commissioner. Although the Commissioner delegated price powers to the Ministry of Food and Agriculture, the Food Estate and its subordinate agencies, still he is the final authority on basic agricultural price policy.

(b) Prices for the basic agricultural commodities are established for each harvest year. For many products there are fixed prices (Festpreise) which are legal minimum, as well as maximum, prices. They may be uniform prices for the whole Reich or for regions of the Reich; for example, there are about 20 price regions for rye; a similar number for wheat; 14 for barley; 2 for edible autumn potatoes.

(c) Fixed prices are used only at the agricultural producer stage; at subsequent stages of production and distribution, maximum prices are fixed, either in terms of specifically named maximum prices or in terms of wholesale and retail maximum mark-ups over cost.

(3) Administered Prices. -- Cartel price agreements and all other price-fixing private agreements, such as resale price maintenance agreements, were subjected to the provisions of the Price-Stop Decree and the authority of the Price Commissioner. The approval of the Price Commissioner is required before any new private price agreement can become effective and before any old agreement can be modified to the disadvantage of the buyer. Cartel prices are

uniform prices either for the nation or for each region. It was formerly the practice of the cartels to fix prices on the basis of the costs of the highest-cost cartel member. After the issuance of the War Economy Decree, the Price Commissioner required that cartel prices be based on the costs of the average-cost cartel member. Subsequently, it was required that the costs of a low cost member plus an "efficiency premium" be used as the basis. In 1942 the Price Commissioner threatened to cancel the cartel contracts of those cartels which failed to reduce prices materially by the end of the year. Instances are known of reductions in cartel prices as a result of this and the preceding measures. Recently the system of "group prices" has been inaugurated.

(4) Government contracts, -- (a) Armament prices and prices for other government contracts were originally subject to the Price-Stop Decree. On 15 November 1938, the Price Commissioner issued a directive which came to be known as the R.P.O. (Richtlinien für die Preisbildung bei öffentlichen Aufträgen), prescribing the principles upon which government contract prices would be fixed. The price decrees, regulations, and orders established generally were held to apply to government contracts, and a duty was imposed on the contracting agencies to secure compliance. However, it was provided that if, because of the nature of a particular contract, the contracting agency could not determine a price under the price-control provisions generally applicable, or if the agency deemed the price generally applicable to be too high, it could fix the price for the contract according to the principles announced by the Price Commissioner on 18 November 1938 for the determination of government contract prices on the basis of costs. These principles, which became known as the L.S.O. (Leitsätze für die Preisermittlung auf Grund der Selbstkosten bei Leistungen für öffentliche Auftraggeber) specify the allowable items of cost and how they are to be calculated. Profits are restricted to a specified percentage-yield on a rigidly defined "necessary" capital. Because of the special problems presented by the construction industry, the Price Commissioner, on 25 May 1940, issued a special set of principles to govern the determination of government construction contract prices on the basis of costs. These principles became known as L.S.B.O.

(b) The contracting agencies were directed to resort to L.S.O. prices only in exceptional cases. In practice, however, prices in almost all contracts for armaments and munitions were fixed according to the L.S.O. Ceiling prices generally applicable came to govern only in those fields in which the government competed as a purchaser with private buyers. To escape from the cost-plus features of the L.S.O., to achieve a uniformity of price for the same article manufactured by different firms, and to reward the more efficient, and discourage the less efficient, producers, the Price Commissioner and the Minister of Armaments and War Production, on 2 February 1942, jointly issued the Order on the Establishment of a Uniform and Group Price System for Government Contracts. Under the provisions of this

Order manufacturers are divided into price groups depending on their costs of production. In some cases, the price sought by an efficient producer in Price Group I, consisting of those producers whose costs come within the lowest range, is fixed as the uniform price for the category of war materials concerned. In other cases, where the supply of the higher-cost producers is essential, as many as five group prices are fixed. In all cases, the firms in Price Group I are given preferential treatment under the excess-profits tax and priorities in the allocation of labor and materials. Firms are free to apply for reclassification into lower-cost groups.

(c) Uniform and group prices under the provisions of this Order are fixed by an Arbeitsstab, composed of representatives of the Price Commissioner and Minister for Armaments and War Production. This system of pricing has recently been extended to certain consumer-goods industries.

(d) A decree of the Price Commissioner, dated 11 August 1943, codified the rules with respect to the pricing of government contracts.

(5) Imports and exports. -- (a) For most goods of foreign origin, the importer is permitted to charge the price he paid plus the absolute amounts of overhead and profit he obtained in comparable business transactions during 1936. The Reichsstellen are authorized to grant exceptions under general rules approved by the Price Commissioner. To prevent the prices arrived at under these provisions from upsetting the domestic stabilization program, the government has subsidized some imports.

(b) For goods coming from Alsace-Lorraine, Luxembourg, the Netherlands, Belgium, and France, the importer is not permitted to charge more than the maximum prices prevailing for comparable German goods and services. Apparently in those occupied countries the Germans could fix export prices at levels which would enable German importers to import at a profit. Here too the Reichsstellen were authorized to grant exceptions with the approval of the Price Commissioner.

(c) In the main, exports have been exempt from price control.

(6) Other specific price regulations. -- There are numerous other price regulations which supersede the Price-Stop Decree in the fields they cover. These regulations use a variety of price-control methods, of which the following are the major types:

(a) Maximum mark-ups over cost. -- Maximum mark-ups over cost are used principally at the retail and wholesale levels. They are of three types:

1. Specified maximum percentages. --

This type of control is used for wholesale and retail sales of furniture and shoes and for retail sales of textiles and textile products (including apparel).

2. Base-period percentages. --

Wholesale trade margins in the textile industry are fixed on the basis of the actual percentage margins taken during a specified period in 1939. If, however, the base-period margins exceed specified percentages, the approval of the Office of Price Control must be obtained.

3. "Mark-und-pfennig" maximum mark-ups. --

In order to prevent increases in costs from unduly increasing the price to consumer, mark-ups are sometimes expressed in "mark-und-pfennig" terms, rather than in percentages. Such mark-ups either are uniform and specified by the price-control authority or are based on the "mark-und-pfennig" mark-ups taken by each seller during some base period.

(b) "Mark-und-pfennig" maximum prices. -- Most of these price regulations are in the field of agriculture. There are, however, a number of these regulations for many nonagricultural commodities, for example, matches and soap, automobile repair and towing services, bricks, wastepaper, scrap iron and steel, and silver and silver products.

(c) Other formula pricing. -- Mark-up over cost pricing is one kind of formula pricing. The most important example of formula pricing is, of course, the regulations applicable to government contracts. (See (4) above). Since 1939 maximum prices for private building construction have been fixed on a similar basis. The items of permitted cost are specified and must be calculated in accordance with the accounting rules promulgated by the trade association. The allowable charges for overhead and profit are fixed by the Price Commissioner.

b. Individual adjustment policy. -- (1) Section 3 of the Price-Stop Decree provides that the Price Commissioner or his delegates may grant individual exceptions or adjustments if necessary in the interest of the national economy or to avoid special hardship. To determine whether individual exceptions are authorized under the provisions of all the other price decrees, regulations, and orders, one must look to the provisions of the particular decree, regulation, or order in question. There is no uniform policy in this regard, some contain provisions authorizing individual exceptions while others do not. In many cases

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relief to individual business enterprises has been granted not by way of price adjustment, but by way of subsidy either directly from the government or from an equalization fund. (See (c) below). However, thousands of individual price adjustments have been granted.

(2) The procedure which an individual firm must follow in order to obtain an adjustment also varies and is specified in the particular regulation, decree, or order which contains an adjustment provision. Except in the few cases where the Price Commissioner himself retains jurisdiction (see par. 2a(2)), the Offices of Price Control generally assume responsibility for passing on applications for individual adjustments. Applications in the first instance must be submitted to the appropriate group of the Organization of Industry and Trade or of the Food Estate. These private groups examine the applications to see if they are properly made out. It is their responsibility, also, to consult with representatives of the subsequent stages of production and distribution and to inform the Office of Price Control of the effect the proposed price increase would have on such subsequent stages. The applications must contain detailed information as to (a) the costs of producing or distributing the product for which a price increase is sought and (b) total sales by the applicant, as well as sales of the product on which a price increase is sought; it must be accompanied by balance sheets, profit-and-loss statements, and tax returns for the preceding 3 years.

(3) Although the Price Commissioner has repeatedly emphasized the need for applying definite and uniform criteria in acting on applications for individual adjustment, there is difficulty in ascertaining the precise criteria which determine action. Generally it can be said that an individual adjustment is granted only when it is necessary to keep the applicant in business and the applicant's continued operation is in the interest of the national economy. Thus, loss on a particular product is not sufficient ground for an increase in the price of that product if the applicant's operations as a whole are profitable. Exceptions when granted are of limited duration and expressly state whether and to what extent subsequent stages of production and distribution may pass on the price increase.

c. Subsidy policy. -- (1) Subsidies have been used in a great variety of ways to maximize the production and importation of essential commodities, secure their most effective geographic distribution at all times of the year, and at the same time maintain price stability. The funds for subsidies have come either directly from the Treasury or from "equalization funds," to which members of the particular branches of industry, trade or agriculture have contributed. Sometimes subsidies are paid partly from Treasury funds and partly from equalization funds. It is estimated that in 1942 German agricultural subsidies amounted to about RM 1 billion. Of this, RM 200 million came from equalization funds, while RM 800 million came from Treasury funds.

(2) Government subsidies often take the form, not of direct payments from the Treasury, but of tax reductions or reductions in the freight rates charged by the Reich Railway, or of purchase-and-sale operations conducted at a loss. By the use of equalization funds, the profits of the more profitable segments of the economy have been drawn upon to assist the less profitable segments and thereby avoid the necessity for price increases or government subsidy payments. The latter objective has often been achieved without resort to an equalization fund by permitting a price increase at one stage of production or distribution and requiring the subsequent stages of production or distribution, because of their favorable profit positions, to absorb it. In some cases equalization funds are raised by contributions from the more profitably situated producers of the same commodity made by the less profitably situated who are able to show they need subsidies to continue in operation. Frequently, however, they are raised by contributions from producers in industries different from that in which the subsidized producers are engaged. Thus, for example, contributions have been exacted from breweries and sugar producers to finance subsidies for rye producers. Even in these cases, an attempt is made to exact contributions from those industries which have some relationship to the subsidized segment of the economy; thus the exaction cannot be said to be wholly arbitrary.

(3) Equalization funds are usually administered by the appropriate Group, the Food Estate, or Reichsstelle, which in turn are supervised by the Price Commissioner and the Reich Ministry involved. In some cases, the Price Commissioner directly administers the equalization fund. If the subsidy is to be paid by the government, the funds are usually turned over to the Reich Economic Chamber, which supervises all the industry groups, or to the Food Estate.

(4) The use of subsidies has been expanded since 1942. In order to increase agricultural output, premiums are paid for production in excess of specified minimum quotas. Quotas have been fixed for milk, butter, eggs, poultry and honey.

d. Barter. -- Because of the serious shortages of consumer goods, people became increasingly reluctant to part with any goods except for other goods. Feeling that the growth of barter, by increasing the supply of money which could compete for the purchase of nonbartered goods, would have inflationary consequences, the authorities attempted unsuccessfully to eliminate it by outlawing it. The authorities were soon forced to accord limited recognition to barter, and legalized barter in second-hand goods not subject to rationing. Official barter offices were set up in municipalities throughout the Reich. By 1942 it was estimated that there were 1,000 such offices. Practically all second-hand consumer goods, clothing, furniture, and other consumer durable goods are bartered. An official of the barter office fixes the price

for every article offered for barter. The municipal barter offices were so successful that permission was granted to the Trade Group for Private Pawnbroking, as well as to the retail trade generally, to set up private barter offices. The fees which they are permitted to charge are regulated. However, most barter transactions are still effected through the medium of newspaper advertisements. Rules adopted by the Association of Publishers permit barter advertisements only with regard to second-hand goods and forbid the use of such expressions as "new" or "just like new." The advertisement must clearly describe the product, and the person advertising must give the newspaper his name and address and photograph. Undoubtedly an appreciable amount of illegal barter in new goods still continues.

e. Measures supplementing price control. -- To aid the enforcement of price control, the Price Commissioner has issued decrees requiring detailed record keeping and price posting. In the interest of economical distribution, particularly in the case of food, provisions have been made to prevent the unnecessary multiplication of middlemen. To increase the supply of consumer goods and to prevent hidden price increases occasioned by quality deterioration, standardization programs for many types of goods have been put into effect, principally by the agencies controlling production and sometimes by the Price Administrator himself. To assist price-control administration in general, the National Group "Industry" prepared uniform General Rules for Industrial Cost Accounting which were approved and made mandatory by the Minister of Economics and the Price Commissioner.

f. Recommendations. -- (1) General. -- (a) To date the effort to control prices has been rather successful. Between 1939 and 1943 the index of wholesale prices in Germany increased 9.2 percent, compared with an increase of 23.5 percent over the same period in the United States and 66.6 percent in England. Between 1939 and 1943 the cost-of-living index in Germany increased 11.3 percent, compared with an increase of 36 percent over the same period in the United States and 28.4 percent in Great Britain. While the accuracy of the German indices may be questioned (the indices in England and the United States have also been attacked), there is no doubt that the German record of achievement compares favorably with the record of all major belligerents.

(b) In the unlikely event that the controls imposed by the Nazis do not break down before Germany is actually occupied, and the German wholesale price and cost-of-living indices remain about where they are now, the goal of military government should be to hold prices near the existing levels. The Military Government authorities should continue in effect all price decrees, regulations, and orders issued by the Price Commissioner and the other authorities to whom price powers were delegated. (Although the War Economy Decree itself

may be repealed, all price actions taken thereunder should be maintained.) Military Government should further retain controls that supplement price control, such as uniform rules for accounting and standardization of products. On the whole, Military Government authorities should accept the existing price controls and concentrate all their efforts upon enforcement, making modifications when necessary. New price regulations will be necessary as consumer-goods production is resumed. The Price-Stop Decree would be wholly inapplicable to these goods, the production of which may have been discontinued for many years and many of which may be new types of goods.

(c) It is possible that considerable pressure will be exerted by industry, agriculture, and labor to force price and wage increases. Industry may expect some relaxation of controls to accompany the overthrow of the Nazis. For some time agriculture has been complaining that farm prices are unfavorably out of line with industrial prices and that farm prices must be increased to maintain the proper relationship. From 1933 on, the general wage level was kept down, although the cost of living from 1933 to 1943 has increased approximately 20 percent. Average weekly incomes have increased substantially because wartime jobs are classified at higher rates and longer hours are worked. With the cessation of hostilities unemployment will probably return, hours of work may decline, and the available jobs may be at lower-rate classifications. As a result, average weekly incomes may decline drastically and pressures for wage increases may mount. Even if such pressures should develop, the Allied authorities should resist them. It should be explained to the German people that such an attempt is merely an anti-inflation measure and does not mean that Military Government either approve or disapprove the existing relationships between agricultural and industrial prices and among wages, prices, and profits generally.

(d) It is likely that the inflation controls imposed by the Nazis will have broken down even before the Allied authorities occupy Germany. The Nazis themselves may relax the controls and permit prices to go up legally. But even if the Nazis hold on to the existing legal controls to the end, the likelihood is that they will be ignored more and more and that the Nazis will be unable to enforce the legal ceilings. It is possible, too, that price and rationing controls will break down to a much greater extent than wage controls. The task of the authorities, therefore, will probably not be to take over inflation controls which are functioning fairly well, but to gain control over a situation which has gotten out of hand. Immediately Military Government will be forced to decide not only the absolute levels at which it will seek to stabilize industrial and agricultural prices, wages, and rents, but also the relationships between agricultural and industrial prices and between wages, prices, and profits generally.

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(e) It would be extremely difficult to roll back prices in the face of strong inflationary pressures. The situation may be such that the authorities will have to accept the general level of prices prevailing at the time of occupation and assume the task of preventing further increase. If it is decided that this must be done, the method of doing it must be carefully considered. A new freeze of prices prevailing at the time of occupation would not only be wholly unenforceable but would operate to the benefit of those who charged the highest illegal prices. To effect a wholesale upward adjustment in prices in a fair manner without making price control unenforceable, a regulation could be issued increasing all legal maximum prices by a flat percentage. The flat percentage should be equal to the percentage by which it is estimated that prices, in general, have actually increased above the legal maximum prices. This would bring certain prices below their current levels and permit others to go above their current levels.

(f) If the attempt to reduce prices is abandoned, and an upward adjustment in legal maximum prices is made, the authorities must concern themselves with the resulting relationships between wages and prices and between agricultural and industrial prices. Obviously there is no common agreement on what such relationships should be. But Military Government should so fix these relationships that at least they permit attainment of the limited objectives of Military Government.

(g) It is in the interest of Military Government to maintain general security by preventing mass privation. This involves stabilizing the prices of the necessities of life at levels which bring those commodities within the practical reach of wage and salary earners. If prices of essential commodities do not correspond with wage and salary levels, and cannot be reduced, wages and salaries should be adjusted to prevent great hardship.^{1/} Military Government should also insure that the prices of essential commodities bought by farmers, both for use in farm production and for personal consumption, are stabilized at levels which bring these commodities within the reach of the farmer. If the prices of essential commodities do not correspond with the level of agricultural income and cannot be reduced, agricultural income should be increased.

(h) Finally, since the government of the occupying authorities will be judged by the governed to a large extent on the basis of whether it is exacting equality of sacrifice, a wage-price-profit relationship should be established which makes profiteering impossible.

^{1/} For details see Civil Affairs Guide, "Wages, Hours, and Working Conditions of Industrial Labor in Germany".

(2) Barter. -- It is recommended that the barter offices be continued in operation. While it is true that the withdrawal of commodities from the money economy is inflationary, to the extent that barter increases the supply of consumer goods in actual use, it is not inflationary. Until stabilization seems fairly assured, prohibition of barter in second-hand goods not subject to rationing will probably not induce people to sell such goods at the legal maximum prices to the same extent that they are induced to part with them in bartering transactions. In addition to barter in second-hand goods, it should be possible to expand the use of industrial products as an incentive for increasing the flow of foodstuffs from the farms to urban collection centers. These industrial products could be offered to farmers through regular channels of trade against delivery of agricultural products. Such barter operations would increase the volume of goods marketed through legal channels.^{1/}

4. Enforcement of Price Control

a. Existing organization of enforcement. -- (1) Section 3 of the Act to Carry Out the Four-Year Plan provides that violations of the price-control decrees, regulations, and orders are punishable by fine or imprisonment or both. No upper limit is placed on the amount of the fines which can be imposed by the Price Commissioner. In addition, the goods which are the subject of the illegal transaction are liable to confiscation by the government. The Price Commissioner is further authorized to close the business enterprise in which the violation occurred, either permanently or for a stated period of time, depending on the seriousness of the violation, or to forbid the enterprise from selling the commodities in connection with which the violation occurred. He is also authorized to prohibit individuals from engaging in any activity in the trade in which they commit a violation. On 3 June 1939 a penal decree (Verordnung über Strafen und Strafverfahren bei Zuwiderhandlung gegen Preisvorschriften) was enacted which punishes the intentional or negligent violation of price control by imprisonment (up to five years) and fines without limit. An amendment to this Decree of 28 August 1941 requires the violator to pay to the federal government the excess over the maximum price which he charged. Violators may also be punished as Volkschädlinge and put to death.

(2) As indicated above, the responsibility for enforcement is lodged primarily in the Offices of Price Enforcement, which in turn have delegated their enforcement powers to subordinate local agencies. The Price Commissioner has also delegated to these local agencies the power to close business enterprises for a definite period of

^{1/} See Civil Affairs Guide, "Food Program for Germany during the Period of Occupation."

time and to prohibit particular business activities. These local agencies use the State Police (which includes the Rural Police) as well as the Secret State Police (the Gestapo) and the Municipal Police. In addition, the Offices of Price Enforcement employ their own inspectors to patrol the stores and markets. In the cities, municipal inspectors, also known as "Food Police" and "Market Police," help to enforce price control. In Berlin, for example, the Police President has set up in various sections of the city so-called bases which function as price offices with authority to close business enterprises for some days and to impose small fines. Das Reich gives the following account of the typical enforcement procedure: "If a retailer has violated a price statute, the procedure taken against him gets quickly under way. Either he is summoned the same day - - - or the following day for the so-called 'submission trial.' If the retailer pleads guilty and promises to avoid any further violations in future, the case is dismissed with a fine corresponding to his income. This fine does not have the character of a penalty. Other cases go before criminal courts, grave cases before the special courts. Insignificant cases are settled by consent decrees before the administrative agencies. The fines vary from 20 RM to several hundred RM. The highest amount paid by consent decree was RM 300,000, which was voluntarily offered in Western Germany as an amends for grave offenses against price statutes."

(3) The Special Courts (Sondergerichte), established by the Act of 21 March 1933, are courts of final resort. Appeal may be taken from the decisions of the regular lower criminal courts to the next higher criminal court. The local government prosecuting attorney may demand trial before the Special Courts if, in his opinion, the public interest will be served thereby. Furthermore, the regular courts may submit any case to the Special Courts if they are of the opinion the case warrants such submission.

(4) It should also be pointed out that there is no judicial review of any price-control decree, regulation, or order. The Price Commissioner and the agencies subordinate to him are supreme in this regard and their decrees, regulations, and orders are mandatory on all other administrative agencies and on the courts.

b. Recommendations. -- (1) Problems of enforcement will be among the most important and difficult that Military Government will have to face. The military occupation of Germany will entail temporary suspension and drastic reorganization of the Nazi judicial system. With this the existing structure of procedures and penalties for the enforcement of price controls will be greatly affected. Military Government will have to devise its own procedures and impose its own system of penalties. It is intended here only to set forth certain suggestions as to what elements of the existing system should be

retained and what modifications, if any, should be made. The Nazi system of penalties for violation is severe and it has been rather successful in securing compliance. Military Government should not hesitate to be severe where the situation so warrants. The system of administrative fines imposed by local price authorities should be continued, though limits should be placed upon the amount of the fine under various circumstances. This system makes it possible to take speedy action against violators and to fit the punishment to the crime. Goods which are the subject of illegal transactions should continue to be liable to confiscation by the authorities. The power of the Price Commissioner and his delegates to close offending business enterprises, to forbid the sale of particular commodities, and to prevent violators from engaging in certain business activities, should be preserved. Violators should continue to be required to pay to the government the excess over the maximum price which they charged. In flagrant cases, violators should be imprisoned.

(2) The most difficult problems that will confront Military Government authorities will arise not in devising a system of penalties for the violation of price controls but in securing general compliance and apprehending the violators. Military Government authorities will be confronted with the task of thoroughly reorganizing the city, county, and state police system (see Civil Affairs Guide "Police and Public Safety in Germany"). It is extremely doubtful whether, in the first stage of military occupation, the resources of the new police, supported by the military police of the Military Government authorities and the reliable price inspectors of the Offices of Price Supervision and the various municipalities, will be adequate to secure compliance with price control and combat black markets. Certainly the Military Government authorities should be aware of the importance of this problem and devote all their available resources to cope with it. But to be successful they must be prepared to enroll the people in the fight against inflation. Thus, as soon as possible the Military Government authorities should delegate responsibility for the administration and enforcement of price control to representatives of the German people. Even during the first stage of military occupation, committees representing industry and the consumer should be appointed to advise the Military Government authorities on all phases of the administration and enforcement of price control. To obtain consumer representation, the authorities should look to the trade unions, which, during the first stage, may be the only groups able to represent the consumer interest effectively. If and as consumers' cooperative associations are organized in Germany, their representatives should also take their place on the consumers' advisory committees. These committees and the trade unions should be organized on a local basis to assist in the tasks of enforcement. In the first place they can undertake to explain the activities of the Military Government to the people whom they represent and to enlist the support of the people for these activities. And, equally important, they can undertake to enlist the people whom they

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represent as "price watchers" to patrol the markets and stores and report violations. This work should be organized as rapidly as possible for it is the utmost importance to the success of the anti-inflation program.

SECTION II. RENT CONTROL

5. Legislation

a. Exist. -- (1) Rent control in Germany has existed since World War I. The Reich Rent Act (Reichsmietengesetz) of 24 March 1922, and the Tenants' Protection Act (Mieterschutzgesetz) of 1 June 1923, which codified legislation passed during World War I, are still in effect, though they have been modified and implemented since the dates of their passage. The Reich Rent Act fixed the maximum rental for space in buildings completed before 1 July 1918, in terms of a percentage of the rental charged on 1 July 1914. Since 1 January 1932, the maximum percentage has been 110 percent. The Tenants' Protection Law is designed to protect tenants against eviction and provides that no tenant may be evicted without the approval of a special tenants' court (Mieteinigungsamt) before whom proceedings for eviction must be brought. Furthermore, it provides that a landlord may institute proceedings for eviction only if the tenant (a) has failed to pay rent for more than a month, or (b) is guilty of misconduct or has treated the premises badly, or (c) has made inappropriate use of the premises, or (d) has sublet without permission, or (e) if the landlord himself desires to use the premises. Since the war it has been provided that the last ground is valid only if the landlord can show that he has such urgent need of the premises that it would be a serious injustice not to permit him to occupy them. It has also been provided that, in the event of a tenant's death, his heir, if living in the tenant's home, succeeds to the tenant's right in the premises.

(2) Originally all business as well as all residential premises were subject to the provisions of these two acts. However, both acts authorized the State authorities to exempt business premises from their provisions. In 1926 Prussia exercised this authority and the other states followed suit. On 18 April 1936, both Acts were expressly amended to exclude business premises, except when part of a dwelling unit. In 1931 the larger residential dwellings were exempted from the provisions of the Reich Rent Act.

(3) The Price-Stop Decree of 26 November 1936, brought under control all rents not subject to the Reich Rent Act, rents of buildings completed after 1 July 1918, of the larger residential dwellings, and of all business premises. Rent increases for any residential or business premises are permitted only on the specific approval of the

appropriate price authority, and then only if a case for an increase is made under the provisions of the hardship clause of the Price-Stop Decree. Furthermore, by a decree of the Price Commissioner, dated 10 April 1939, tenants in premises brought under control by the Price-Stop Decree were afforded protection against unwarranted eviction. Any tenant who is given notice to vacate may protest the notice, in which event the landlord must obtain the approval of the appropriate price agency to evict the tenant. The price agency will refuse to grant its approval if the tenant can show that eviction would cause him considerable hardship. However, it will grant its approval if the landlord consents to compensate the tenant for the moving and other expenses that would be incurred by the tenant in vacating, and to grant the tenant the necessary time to find other premises.

(4) Further protection to tenants is afforded by the Reich Law on Exactions (Reichsleistungsgesetz) of 1 September 1939, and the First Reich Decree on Grants-in-Aid (Erster Reichsbeihilfeerlass) of 8 March 1943. The Law on Exactions authorizes local authorities to requisition facilities for billeting purposes. Persons provided with dwellings under the provisions of this law may not be evicted except with the approval of the municipal billeting office. The law also regulates the rents which are to be paid for such dwellings. The Decree on Grants-in-Aid provided for direct government assistance to persons who move away from localities where housing facilities are inadequate. The government contributes from 50 to 100 percent of the cost of moving, depending upon the need of the mover. Moreover, if the mover cannot find a new dwelling at the rental he formerly paid, or if he cannot be expected to be satisfied with the dwelling which is available at the former rental and consequently must pay a higher rental, the government will pay the difference between the former and present rental for a period of 3 years (for a fuller discussion of these laws, see Civil Affairs Guide, "Housing and Building Materials in Germany; B Administration").

(5) Persons supplied with dwellings under the provisions of the Decree for Supply of Housing Space for the Bombed-Out Population (Verordnung zur Wohnraumversorgung der Luftkriegsbetroffenen Bevölkerung), of 21 June 1943, are not protected against eviction under the Tenants' Protection Law or any other law. If such persons are evicted, however, the municipality is under a duty to provide other dwellings. Persons supplied with dwellings under the provisions of the Decree for the Regulation of Housing Space (Verordnung zur Wohnraumlenkung), of 27 February 1943, are protected against evictions under the Tenants' Protection Law. (For a fuller discussion of these decrees see Civil Affairs Guide, "Housing and Building Materials in Germany; B. Administration.")

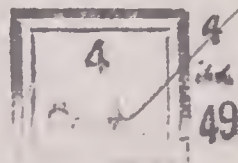
b. Recommendations. — The existing legislation, which in the main has been in effect for more than 20 years, seems to be adequate. The Military Government authorities should immediately ratify the existing

legislation on rent and eviction control and function within that framework. The only modifications that are recommended are the extension of the provisions of the Tenants' Protection Act to persons supplied with dwellings under the Decree for the Supply of Housing Space for the Bombed-Out Population, and the extension of the protection of the Reich Rent Act and Tenants' Protection to persons deprived of such protection by the various Nazi discriminatory laws. Even if the authorities make an upward adjustment in the legal maximum price and wage levels, no substantial adjustments in rents will be required.

6. Administration.

Since 1936, the administration of rent (and eviction) control has been the responsibility of the Price Commissioner. In practice, complete authority has been delegated to the city and county price offices, who thus administer the controls over rents for both residential and business premises. This administrative organization should be continued by Military Government.

WAR DEPARTMENT PAMPHLET NO. 31-155



CIVIL AFFAIRS GUIDE

DISTRIBUTION AND RATIONING OF CONSUMER GOODS, OTHER THAN FOOD, IN GERMANY



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WAR DEPARTMENT •

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[A. G. 461 (28 Jul 44).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
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The Adjutant General.*

SUMMARY

Controls over the distribution of consumer goods were initiated in Nazi Germany some years before the war. Production was restricted, legal channels of trade established, inventory and other records required, the use of storage and transportation facilities regulated, and prices fixed. Rationing was introduced August 27, 1939. During the war many retail and wholesale establishments have been closed down, the salvage program intensified, barter trade put under official regulation, and rationing tightened and extended to additional commodities and services.

The Reich Ministry for Economics has charge of distributing and rationing such consumer goods and services as the Ministry for Armament and War Production allocates for the civilian economy. Subject to the approval of the Minister for Economics, the distribution and rationing program for each commodity or service is ordinarily determined by the Reich Office (*Reichsstelle*) for the industry that produces the goods or provides the service. The Reich Offices are composed of the leaders of the various industries.

Details of the rationing programs are handled by regional and local Economic Bureaus (*Landeswirtschaftsämter* and *Wirtschaftsämter*) of the Ministry. They issue ration cards and acquisition permits, and in the case of institutional consumers, special purchase certificates. Through an exchange of purchase certificates for consumer coupons (surrendered by the retailers) and through an exchange of wholesale purchase certificates for purchase certificates (surrendered by the wholesalers) they control the distribution of goods from the manufacturer to the retailer. Mass consumers, such as Nazi Party formations, obtain their allotments through special certificates issued directly by the Reich Offices.

Consumers are divided into categories, according to their physiological needs, their function in the war economy, and also according to their nationality, race, religion, and political acceptability. Some groups have suffered from systematic discrimination.

Clothing and textiles were originally rationed on a point system, but shortages have become so acute that they can now be purchased only with an acquisition permit issued on an individual basis. Footwear has been on this basis ever since 1939. Soap, coal, petroleum products and substitutes are rationed through cards with coupons for specified units. The distribution of drugs has been greatly restricted. Civilian use of electric power, which has been reduced by 10 to 30 percent of the 1942 consumption, is carefully metered and checked. With the growth of barter in second-hand goods, it has been put under regulation; and official and semiofficial barter shops have been established.

The Reich Offices and Economic Bureaus employ inspectors to see that regulations are obeyed by manufacturers, dealers, and consumers. The SS and other Nazi Party groups, such as the Blockwardens, add

terror to the enforcement machinery. Penalties for violations are severe.

After German defeat there will probably be a considerable period of continued shortages, accentuated by military destruction, transportation difficulties, partial break-down of controls, mass movement of peoples, discontinuance of many imports, and the growth of black markets and other incidents of actual or threatened inflation. The distribution of consumer goods will require strict controls.

Allied Authorities should supervise the reorganization of the institutions that administer the distribution program, to insure that Nazi elements are removed and Nazi policies, propaganda, and practices (including the leadership principle, racial, religious, and ideological discriminations, and terrorism) eradicated. The reorganized institutions should be made responsible both to the supervising Allied Authorities and to the German people for carrying out a fair and democratic program, which should aim to:

a. sustain the population in essential civilian commodities on an equitable, though perhaps a subsistence, basis;

b. make such commodities available as incentives for food producers;

c. provide, as soon as practicable, some quantities of such commodities for liberated areas and, so far as may be necessary, for the occupying forces;

d. avoid unnecessary burdens on United Nations supplies and shipping.

All outstanding purchase certificates for Party formations and similar mass consumers and all outstanding acquisition permits for individuals should be promptly canceled; new certificates and permits should be issued promptly to groups and persons in greatest need, including victims of military destruction and Nazi internment or discrimination. Special attention should be given to providing incentive goods to food producers.

All stocks in the hands of the Nazi Party formations and of the German armed forces should be seized and made available for civilian distribution in Germany and in liberated areas.

This Guide should be read in conjunction with the following related Civil Affairs Guides:

Textiles in Germany

Leather and Footwear in Germany

Coal Production and Distribution in Germany

Oil Allocation and Distribution for Civilian Consumption in Germany

Electric Power Systems of Germany

Food Administration for Germany During the Period of Occupation

Preservation and Use of Key Records in Germany

General Principles for the Dissolution of the Nazi Party and the Elimination of the Nazis

PRESENT SYSTEM OF DISTRIBUTING AND RATIONING CONSUMER GOODS

General

As early as 1934 the Nazi authorities began to regulate the use of scarce raw materials and to divert goods to war purposes by intro-

ducing controls over distribution of finished products, as well as over the allocation of strategic materials for production. The production of some types of consumer goods was prohibited, the use of various raw materials was prohibited or restricted, a system of priorities was established, stocks of raw materials and finished goods were confiscated, production quotas were set, quality and styles were standardized, and salvage measures adopted. Reich Offices (*Reichsstellen*) were established as over-all planning and control agencies for each of the major industries in Germany, including industries wholly or partly devoted to the production of civilian goods.

In addition to such production controls, various expedients were introduced to regulate the distribution of finished products, chiefly consumer goods. Such measures included licensing of dealers, regulating the use of storage and transportation facilities, designating legal channels of trade, and imposing a system of inventory control. Maximum prices were fixed at each stage of production and distribution, and penalties were imposed for price violations. Rationing of consumer goods was established just before the war on August 27, 1939, by the "Act for the Assurance of the Necessities of Life to the German People," as a final step to complete the circle of control.

As the war progressed, new emergencies arose that called for special measures. The War Relief Program (*Kriegsauflageprogramm*) was evolved in 1942, in an attempt to supply consumer goods in bombed areas. Provisions were made for replacement of lost ration cards, special permits were issued, and priorities established for air-raid victims. As goods become more scarce, a program for closing down of retail and wholesale establishments was initiated on a large scale. Manufacture of, and trade in, luxury goods, such as cosmetics, jewelry, luxury chinaware, furs, carpets, and pianos, were prohibited, and places of amusement, as well as many restaurants, were closed down. Only a limited number of retailers of books, flowers, umbrellas, leather articles, and other such goods was allowed to remain open. The number of dealers in household goods, textiles, shoes, drugs, surgical instruments, and other products was also sharply curtailed. The total number of shops closed during the first 6 months of 1943 was estimated at about 120,000. Control was also extended to barter trade and dealers in second-hand articles.

Administration

Until September 1943 the Reich Ministry for Economics (headed by Walter Funk) was administratively responsible for the allocation of raw materials for civilian goods and for the production and distribution of such goods. On that date, however, most of these powers were transferred to the Ministry for Armament and War Production (headed by Speer). Under the new set-up the Reich Minister for Economics acts as claimant for semifinished and finished products to supply the civilian population and to maintain and repair damaged civilian property; and he has charge of distributing and rationing such goods as the Ministry for Armament allocates for the civilian economy.

The Reich Offices (*Reichsstellen*), set up before the war, control the flow of raw materials and foreign trade, regulate industry, and control distribution and rationing of consumer goods. The Reich Offices are established on an industry basis. Each office, headed by an Admin-

istrator (*Reichsbeauftragter*), determines, subject to the approval of the Minister, the nation-wide rationing policy for the commodities over which it has jurisdiction. The details of the rationing programs are carried out by Regional Economic Bureaus (*Landeswirtschaftsämter*), and local Economic Bureaus (*Wirtschaftsämter*), attached to the Ministry.

Two Reich Offices exist in the textile economy; one controls the clothing field, and the other the fields of cotton, cotton yarn, silk, artificial silk, staple-fiber yarn, and asbestos. Wool and animal hair, bast fibers, and chemical fibers are controlled by *Reichsvereinigungen* (national associations). Plans and standards for rationing clothing are determined by a Central Office for Calculating Points for Clothing. The Shoe Association (*Gemeinschaft Schuhe*), set up in October 1942, controls the manufacture and repair of footwear. Production and distribution of soap and soap products is regulated by the Reich Office for Supplying Industrial Fats (*Reichsstelle für Industrielle Fettversorgung*). Similar functions in the case of coal are carried out by the Reich Coal Office (*Reichsstelle Kohle*); and in the case of electric power, by the Reich Office for the Electricity Industry (*Reichsstelle für Elektrizitätswirtschaft*).

The Regional Economic Bureaus are headed by the Provincial Presidents (in Prussia) and the Reich Governors or Prime Ministers in other states. Their rationing and salvage functions are carried out under the regulations of the Minister for Economics and the Reich Commissioner for Salvage (*Reichskommissar für Altmaterialverwertung*). Local Economic Bureaus are exclusively concerned with rationing and salvage and are headed by the Mayors of cities or the County Commissioners (*Landräte*) of rural districts.

Rationing Techniques

Distribution of consumer goods to individuals is controlled through ration books or acquisition permits, issued by the local Economic Bureaus. Consumers are not all treated alike but are divided into categories, according to their physiological needs, their function in the war economy, their political affiliations, nationality, race, and religion. Nazi Party members often receive special privileges; foreigners and Jews are subject to systematic discrimination. Large consumers, such as hospitals and institutions, receive special purchase certificates, issued by the local Economic Bureaus. For mass consumers, such as Party formations, special certificates are issued by the appropriate Reich office.

The ration coupons (or cards), through a flow-back system, serve as an instrument for regulating the distribution of goods from manufacturers to retailers. The retailer collects the coupons (or cards) from his customers and deposits them in a point account with the Economic Bureau. Against this deposit the Economic Bureau issues purchase certificates which enable the retailer to obtain supplies from the wholesaler. The wholesaler in turn deposits the purchase certificates in a point account with the Economic Bureau and against this deposit receives wholesale purchase certificates which enable him to obtain supplies from the manufacturer. The Reich Office for each industry regulates the flow-back procedure affecting the commodities within its jurisdiction.

While the basic principles governing distribution of consumer goods are common to almost all types of goods, the rationing techniques

differ from one class of commodities to another, according to conditions of supply and need, requirements and availability of storage and transportation facilities, and other considerations.

Clothing and textiles.—In the case of textiles and clothing, Germany at first used a system of point rationing. Point values were assigned to each article; and the consumer, who was issued point coupons valid for a specified period and for specified groups of articles, was allowed within the period to buy a limited quantity of such articles up to the value of his ration points. Consumers were divided into categories according to age and sex, as well as occupation, nationality, and so on; but as in the case of other goods, some people received more and others less than the normal rations allowed their class; and some foreigners and Jews received none at all. Within these limitations, the system provided a little leeway for satisfying individual consumer needs and preferences and at the same time afforded the administrators some means (through their power of assigning and changing point values) of steering consumer demands according to shifting conditions of supply.

But on August 1, 1943, due to acute shortage of civilian textiles and clothing, the point system was suspended for all except a few categories of consumers, such as mourners and pregnant women. For most consumers a system of individual acquisition permits, issued by the Local Economic Bureaus, was substituted. Under the new system only a consumer who can show evidence of unusual need is entitled to receive an acquisition permit, and a separate permit is required for each item. In the case of some items, such as suits and overcoats, the consumer who obtains an acquisition permit can still not purchase the new article he needs without first surrendering the used article that is to be replaced. In some heavily bombed areas only air-raid victims receive permits; such permits are stamped "FL" and in some of these areas no other textile or clothing permits are honored. Moreover, the shortage of goods is so acute that even persons who obtain acquisition permits are sometimes unable to find any supply of what they need.

Shoes and shoe repair.—From the very outset of German rationing in 1939, shoes have been too scarce to allow every consumer to buy them. Only persons who can show unusual need are given the right to purchase shoes. Whereas the system of acquisition permits was not established for clothing until August 1, 1943, it has been used for shoes ever since 1939.¹ But no permit is required for wooden, wooden-soled, or second-hand footwear, or for baby shoes made without leather.

In 1943 even shoe repairs became strictly regulated. In general, only person holding the Fourth Reich clothing card were entitled to obtain shoe repairs. This card was used as a means of registering the consumer with a particular repair shop, and thenceforth he could deal with no other. The shoe repairer obtains soling materials (leather, rubber, leather fiber, and other substitute materials) only upon the surrender of soling coupons which he receives from the local district Artisan's Association in accordance with the number of customers on his list of registered customers.

¹ From January 1 to August 1, 1943, when textile shortages were becoming increasingly acute though clothing was still being rationed on a point-coupon basis, the scarcity of leather was used indirectly to limit clothing purchases. During those months the holder of an acquisition permit for a pair of shoes could not buy the shoes without surrendering, in addition to the permit, a certain number of clothing coupons.

Soap and soap products.—Soap and soap products have been rationed ever since 1939. The device used to regulate their distribution and consumption is the soap ration card, with coupons that entitle the holder to buy, within a specified period, a limited quantity of soap. Supplemental cards are issued for certain classes of consumers; for example, males 17 years old and over receive a supplementary card with coupons for shaving soap or cream, and some persons with special or hygienic needs also receive supplementary cards. Persons who patronize laundries have to surrender soap coupons to the laundry.

In view of the increasingly acute shortage of fats, it will probably be difficult to maintain even the present low soap rations.

Drugs.—Various types of drugs are in such short supply that their use is strictly regulated. The number of drugs that may be purchased on a doctor's prescription only has been considerably increased, and for many types of drugs one purchase only can be made on one prescription. Other restrictive devices include the regulated substitution, by the pharmacist, of more readily available drugs in the place of preparations which are in short supply, the restriction of the uses for which certain drugs may be prescribed, and the prohibition of prescribing certain drugs, the supply of which is especially short.

The most elaborate rationing system has developed in the case of insulin. The total demand was ascertained by means of having the patients submit applications certified by physicians, and available supplies were then allocated regionally. Patients for whom insulin was deemed essential received special ration cards; but doctors were instructed to abstain from prescribing insulin in light cases of diabetes, to reduce the quantity prescribed in more serious cases, and to cease prescribing it altogether as a remedy for other diseases.

Coal.—Coal is rationed through coal yards, with coupons issued on the basis of a percentage of previous requirements, taking into consideration the number of rooms to be heated, the kind of heating facilities, and the number and state of health of the occupants. Customers have to accept coal substitutes, if the Reich Coal Office (*Reichsstella Kohle*) so decrees. Consumers without permanent residence may apply for a special coal card; coupons from this card are surrendered to the landlord of the temporary residence and exchanged by him for order blanks certified by the Local Economic Bureau. Consumers are required to accept coal whenever supplies are available and to store it in whatever space is available, if necessary even in living rooms. Maximum temperatures are established for homes and buildings. The use of auxiliary gas or electric heaters and the use of gas or electricity in excess of previous consumption is prohibited; and strict control is maintained through the use of meters. Large coal consumers are required to report monthly on consumption, receipts, and stocks and are supplied by special allotments from the Reich Coal Office.

The Reich Coal Office allocates supplies to the Regional Economic Bureaus, which divide them among the local Economic Bureaus. The latter in turn allot the supplies among the local dealers in accordance with the number, kind, requirements, and past consumption of their respective customers.

Petroleum products and substitutes.—Distribution and consumption of Diesel oil, motor oil, lubricants, kerosene, and substitute fuels are

controlled through ration cards for each type of product. Ration cards and oil quotas are allocated by the appropriate Reich Office to the Regional Economic Bureaus, which subdivide the quotas among the subordinate local Bureaus. The latter usually issue the ration cards to individual consumers.

Some products used in agriculture are apparently allocated through the Farmers Associations (*Bauernschaften*). For example, the Reich Office for Mineral Oil makes an over-all allocation for agricultural uses to the Reich Farmers Leaders (*Reichsbauernführer*), who divides the quota among the Regional Farmers Associations (*Landesbauernschaften*); the latter in turn subdivide the regional quotas among the District Farmers Associations (*Kreisbauernschaften*), which directly or through the Local Farmers Associations (*Ortesbauernschaften*) make the allocations to the farmers.

There are several types of cards, stamps, and certificates issued in connection with the rationing of liquid fuels:

1. Filling station cards (*Tankausweiskarten*).
 - a. Filling station cards for light motor fuel (*Tankausweiskarten für Vergaserkraftstoff*).
 - b. Filling stations cards for Diesel fuel (*Tankausweiskarten für Dieselmotorkraftstoff*).
 - c. Filling station cards for motor kerosene (*Tankausweiskarten für Motorenpetroleum*), which are valid also for certain tractor fuels.
2. Mineral oil supply certificates (*Mineralöl bezugscheine*) valid for light motor fuel or Diesel fuel.
3. Liquid gas control stamps (*Treibgas-Kontrollmarken*).

The filling station cards and the liquid gas control stamps may be used at filling stations or warehouses, but mineral oil supply certificates may be used only at the storage centers.

The uses to which liquid fuel and liquid gas can be put are strictly controlled. Without permission of the appropriate Reich Office, they may not be delivered or consumed for purposes other than use in combustion engines.

Lubricants of all kinds are also strictly controlled. Only the most essential uses are authorized, and the quantities allowed call for the most economical utilization. Regulations provide for the surrender of used oil.

Cards for household rations of kerosene (*Petroleumbezugsausweise*) are issued without fixed quantity values; but the Economic Bureaus establish from month to month the quantity that may be purchased against them.

The development of substitute fuels, generators that can use them, and a distributive system for such products has been administered from the Central Office for Generators (*Zentralstelle für Generatoren*) in the Four Year Plan Office. This Office has established a chain of "filling" stations throughout Germany to handle distribution. Solid substitute fuels for motors are divided into two types: those with a high tar content, such as timber, peat, and lignite; and those with a low tar content, such as anthracite and coke. Consumption has been limited largely through regulations concerning the use of generator vehicles; and since April 1, 1943, solid substitute fuels have been delivered only against solid fuel cards (*Festkraftstoffkarte*) for one type or the other. Each purchase of fuel must be registered on the card. In general, the validity of a card is limited to filling stations within a cer-

tain radius (50 kilometers) of the place where the vehicle is usually garaged. Special permits are required for long-distance trips.

Electric power.—In February 1943, reductions of power consumption in private homes, apartment houses, hotels, shops, and office and public buildings were ordered by the Reich Office for the Electricity Industry. The reductions ranged from 10 to 30 percent of the 1942 consumption. A standard was set of 5 watts of lighting per square meter of floor space, and consumption was carefully metered and checked. The Economic Bureaus, which administer and enforce the regulations, have power to impose fines for violations.

Second-hand goods.—Official and semiofficial shops have been opened in many towns to handle trade in second-hand goods of all descriptions. The outstanding characteristic of this trade is that it is usually conducted on the basis of barter. Many pawnbrokers, department stores, and other establishments, in addition to the official and semiofficial shops, have been authorized to conduct barter in second-hand goods; and special regulations have been issued to govern the growing activity of such establishments.

Enforcement

To implement the enforcement of the distribution and rationing program, a complete system of statistical and other records has been established, covering purchases, sales, and inventories, at each step in the production and movement of consumer goods. Standardized systems of accounting, often requiring the use of standardized forms, have been widely imposed. The Reich Office for each industry prescribes the procedures and forms for maintaining complete information on the activities of the industry. As indicated above, mass consumers depend directly on the Reich Offices for authorization to obtain supplies, and institutional consumers depend directly on its Economic Bureaus.

The Reich Offices and Economic Bureaus employ inspectors to check on manufacturers, dealers, and consumers and to see that regulations are obeyed. The SS and other Nazi Party groups, such as the Blockwardens (*Blockwärtter*), play an even more important and extensive part in enforcing the regulations. These Party police and neighborhood agents can go directly into business establishments, institutions, and private homes at any time of day or night to look for evidence of violations. This terror machinery, coupled with a system of severe penalties, including loss of business and sometimes even the death penalty, accounts in large measure for the effectiveness of the distribution and rationing controls in Germany.

CONDITIONS AND PROBLEMS AFTER GERMAN DEFEAT

After the defeat of Germany, it will probably take a considerable period of time to convert its war economy to peacetime operations. Meanwhile, scarcities of consumer goods will continue and in some cases may become more acute. The intensification of the Nazi war effort in its last desperate months will probably have cut civilian production and distribution to the bone; personal reserves of textile and household goods, often of *ersatz* or inferior quality, will be wearing out or used up; military action may have damaged or destroyed some of the producing and distributing facilities; transportation may be partially disrupted; imports of supplies from areas previously under

German domination or occupation will be largely discontinued. Nazi controls over distribution and rationing may sag; some officials will have fled their posts; others may find their authority challenged or ineffective. Adding to the confusion will be the return of millions of German troops, the release of millions of foreign prisoners and workers, and the movement of millions of displaced German civilians. Black markets and other incidents of threatened or actual inflation may appear on a growing scale.

United Nations' supplies of textiles and household goods will be needed by the United Nations and liberated areas; and even if there should be some surpluses, the shipping situation (particularly if war in the Pacific continues) will hardly permit any early large-scale shipments to Germany. Indeed, liberated areas will probably make demands for German facilities and products to aid their rehabilitation.

In these circumstances the distribution of consumer goods, like that of foodstuffs, will require strict controls. But the present controls cannot be used without substantial changes in personnel and standards. War aims of the United Nations require that Nazi officials be removed and that Nazi discriminations be abolished. Such reorganization is also necessary to prevent sabotage against a program of fair and impartial distribution.

Allied Authorities will have to supervise the reorganization of personnel and policies, but they will hardly have enough administrators trained in matters of distribution and rationing to handle the entire program themselves. Responsibility for the detailed administration of the program will have to rest largely upon German personnel.

RECOMMENDATIONS

General

1. In accordance with United Nations' war aims and considerations of order and security, it will be necessary to rid the administration of this program of Nazi elements and to eliminate Nazi policies in institutions that administer the distribution and rationing of consumer goods in Germany.

2. Allied Authorities should supervise the reorganization of personnel and policies, but it should be made publicly and constantly clear that the new German administrators are responsible both to the supervising Allied Authorities and to the German people for carrying out the distribution and rationing program.

3. Within the limits of German resources, the major objectives of the program should be to—

- a. sustain the population in essential civilian commodities on an equitable, though perhaps a subsistence, basis;
- b. make such commodities available as incentives for food producers;
- c. provide, as soon as practicable, some quantities of such commodities for the occupying forces and for liberated areas;
- d. avoid unnecessary burdens on United Nations supplies and shipping.

4. The measures to be taken toward achieving a denazified and effective distribution system should include:

- a. removal of Nazis and pan-Germans from positions of authority (including, among others, those formulating or directing policy and

propaganda and those hiring, firing, or training personnel) and the replacement of such persons by reliable prodemocratic anti-Nazis;

b. elimination of discriminatory practices based on racial, religious, or ideological grounds;

c. elimination of Nazi propaganda (including Nazi names and symbols), to be replaced by straightforward publicity concerning practical democratic methods and objectives of the program for distributing and rationing consumer goods;

d. elimination of unconscionable Nazi punishments and terror in favor of reasonable legal and economic sanctions;

e. expedition of movement of essential consumer goods from centers of production to areas of consumption, particularly to farming areas; and

f. stabilization of prices and prevention of black markets.

Administration

Records.—5. All files and records of the German central, regional, county, and local agencies having any part in the administration of consumer-goods distribution and rationing (see preceding text for most important agencies) should be promptly put under Allied guard. Such records will be needed by the reorganized German institutions and the supervising Allied Authorities that will be concerned with the programming and administration of consumer-goods distribution and rationing.

Ministry for Economics.—6. In the absence of a central German government recognized by the United Nations, it would be anomalous to retain the Reich Ministry for Economics, but some central economic controls will be necessary. The name of the Ministry should be changed to *Zentralamt für Wirtschaft* (Central Office for Economics) or some other suitable name that has no connotations of Nazi-ism, nationalism, or sovereignty. The organization should act under the supervision of the Allied Authorities; and its files and records should be kept under Allied surveillance.

7. As the top personnel of the Ministry are Nazis and pan-Germans, responsible for the Nazi policies and practices of the consumer-goods distribution and rationing program and cannot be relied on to promote a democratic program, it is recommended that, in accordance with United Nations' war aims and considerations of order and security, the Minister and all other policy-making executives in the Ministry be arrested and removed. The technical and clerical personnel should be checked for reliability; those who have been officials of the Nazi Party or of any of its formations or who for other reasons are deemed unreliable should likewise be arrested and removed, as well as any persons in the Ministry, regardless of classification, that are responsible for personnel decisions, propaganda, or any other strictly Nazi operation. The remaining persons should be watched, and the weeding out of unreliable persons should be a continuing process.

8. The Central Office for Economics should be headed by a known prodemocratic anti-Nazi German, to be called *Provisorische Direktor* (Provisional Director) or some other suitable title. With his assistance, the Allied Authorities should supervise the selection of additional prodemocratic anti-Nazis to assume positions of administrative responsibility in the central organization. It should be made clear that their tenure will depend on their planning and administering an

equitable and efficient program. Their acts and policy decisions should at all times be subject to approval by the Allied Authorities.

9. The functions of the Central Office for Economics should include those exercised by the Ministry prior to the transfer of some of its jurisdiction to the Ministry for Armament and War Production, excepting those functions which are incompatible with the basic Allied objectives; and of course all Nazi policies, such as the leadership principle, racial, religious, and other unjust discriminations, and terrorism, should be promptly and utterly eradicated. Special attention will have to be given to persons whose possessions have been lost as a result of military action; persons who have been interned or systematically discriminated against by the Nazis; and persons who produce foodstuffs. Consumer categories should be completely overhauled and undemocratic differentials abolished.

10. The Allied Authorities should promptly issue a proclamation, publicized through notices, newspapers, and the radio, announcing the establishment of the Central Office for Economics and the reorganization of the regional and local agencies (see below), their general functions, objectives, and responsibilities, and the practical importance of supporting and cooperating in the new program. It should be explained that whatever confusion exists is the inevitable consequence of the Hitler regime.

The Reich Offices.—11. The Reich Offices (*Reichsstellen*) for the various industries, though attached to the Ministry, are composed of industrial leaders and are paid by the industries. Executives and staff members who have been officials of the Nazi Party or any of its formations, or who for other reasons are deemed unreliable, should be arrested and removed. They should be replaced by reliable anti-Nazis; the latter, together with such members of the existing staffs as may be retained, should be put directly in the Central Office for Economics as public officials and servants. Under the direction of the Central Office and under the supervision of the Allied Authorities, they should perform the same functions as heretofore, excepting those incompatible with basic Allied objectives. The files and records of the *Reichsstellen* should be put directly at the disposal of the new central organization and kept under Allied surveillance.

12. All outstanding permits for mass consumers should be promptly canceled; these are mostly for Nazi Party formations. Provision should be promptly made for new types of mass consumers: persons being released from concentration camps, foreign workers being released, persons on relief in devastated areas, and the like.

13. All stocks of civilian goods in the hands of the Nazi Party and its various formations, as well as in the hands of the German armed forces, should be promptly seized and put at the disposal of the new German economic authorities, subject to the approval of supervising Allied Authorities. Wherever feasible, some of these stocks should be made available for use in liberated areas.

The Regional and Local Economic Bureaus.—14. The Regional and Local Economic Bureaus of the Ministry (*Landeswirtschaftsämtter* and *Wirtschaftsämtter*) are composed of civil servants; but their executives and many of their staff members are Nazis. Those who are officials of the Nazi Party or any of its formations, or who for other reasons are deemed unreliable, should be arrested and removed. The Central Office for Economics, under the supervision of the Allied Au-

thorities, should replace such persons with reliable anti-Nazis. Technical and clerical personnel who are retained should be watched, and the weeding out of unreliable elements should be a continuing process.

15. All outstanding acquisition permits and other special permits to buy acutely scarce commodities should be promptly canceled. Most of these are in the hands of persons favored by the Nazis; large numbers may be issued deliberately to complicate and embarrass Allied Military Government. Where commodities are so scarce that their purchase can be authorized only by special permit, new standards and priorities should quickly be established to favor persons who have been systematically neglected or discriminated against by the Nazis, persons who have lost everything through military action, and persons who should be given incentives to produce foodstuffs.

16. As soon as feasible, all Nazi symbols on ration cards and other forms used in the control of distribution and rationing should be obliterated and new cards and forms issued.

17. The SS, the Blockwordens, and other Nazi formations that have played a terrorist part in the enforcement of the distribution and other programs should, of course, be abolished. The inspectors now attached to the Reich Offices and Economic Bureaus should be arrested and removed. If the reorganized German institutions find it necessary to engage special field inspectors, they should recruit, subject to approval of supervising Allied Authorities, anti-Nazi personnel for this purpose. Extreme care should be taken to insure that these persons conduct themselves in all respects as public servants. The confidence and cooperation of producers, dealers, and consumers will depend to a considerable extent on the character and conduct of the new officials with whom they come into direct and frequent contact.



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